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ABSTRACT

The purpose of this study is to analyze the relationship between the theories of B.F. Skinner and Carl R. Rogers. In sections 2 and 3, the author discusses the Skinnerian and Rogerian theories by selecting and explicating key elements and delineating the general, comprehensive, theoretical position of each. Sections 4 and 5 present each man's thoughts on education. Chapters 6 and 7 infer some of the issues and problems if each theory were accepted totally and applied to a real social setting. Chapter 8 contains conclusions and implications of the study. The main conclusion is that both Skinner's and Roger's models have their merits, but an educator cannot value both of them equally without creating an inconsistency within his professional practice. A reasonable approach might be to consider either set of theories only in selected and limited educational situations. (Author/DE)

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# Curriculum Bulletin

## B. F. Skinner and Carl R. Rogers on Behavior and Education

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# B. F. SKINNER AND CARL R. ROGERS ON BEHAVIOR AND EDUCATION

by Eugene E. Swaim, Ph.D.

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TABLE OF CONTENTS


| | Page |
|---|---|
| Introduction | 1 |
| Skinner on Human Behavior | 3 |
| Rogers on Human Behavior | 9 |
| Skinner on Education | 13 |
| Rogers on Education | 22 |
| Skinner's Theory in Social Context | 29 |
| Rogers' Theory in Social Context | 35 |
| Implications for Education | 39 |
| Bibliography | 43 |


## INTRODUCTION

Rapid change in today's society, and subsequently in today's schools, raises significant questions for the educational theorist, the educator of teachers, indeed, for all who are engaged in the process of education. What will the schools of the future be like? What will tomorrow's teachers need to know that today's teachers do not? How will future teachers work with students and with one another? How will instruction be defined and carried on? How will students do their work? What will be considered appropriate "work" for the student? What will be the role of teaching machines, computers, and other educational technology?

An adequate educational theory must offer at least temporarily satisfactory answers to two fundamental questions: first, what part of our present culture is truly worth transmitting to the next generation, and second, what methods of teaching, carried on in what institutional organizations, will be effective in transmitting these most precious parts of our heritage? The essence of these two questions have probably always been relevant to the efforts of those involved in the teaching-learning process. Today, in the American society, many youth feel that the traditional wisdom of our culture has been shattered. Such youth are left with a kind of corrosive skepticism that tends to scorn ideological and utopian approaches to education. One characteristic of skepticism is a cancerous quality which seems to prohibit the skeptic from recognizing factors essential to his own modes of knowing and behaving. If skepticism is allowed an unlimited control of one's perspective, learning becomes impossible.

An analysis of the dynamics of the process usually labeled education reveal certain factors to be essential for human life. On the one hand is a cultural framework, some basic elements of which must be handed on to individuals. Humans have always lived in social groups; this fact mandates the provision for some minimum of social stability. Until possibilities are developed, if indeed they can be, which permit human life without numerous interpersonal relationships, the cohesive qualities necessary for individual existence must depend upon cultural controls. The viability of such controls is maintained largely, if not completely, through socialization. On the other hand is the individual, experiencing his idiosyncratic existence within the framework provided by his particular culture. The relationship between society and individual is one of existential symbiosis. Neither can exist without the other. Intrinsic in this relationship is a paradoxical characteristic of mutual control: the society and the individual each, to some degree, control the development of the other. What is the nature of such control of human behavior?

The present study of human behavioral control focuses upon two conflicting approaches, those of B. F. Skinner and Carl Rogers. These men participated in a debate at the convention of the American Psychological Association in the fall of 1956. The issue that these psychologists debated was the use of scientific knowledge in molding or controlling human behavior. (Rogers and Skinner, 1956) Later, in a symposium forming a part of Rice University's semicentennial celebration, again Skinner and Rogers argued contrasting views. (Wann, 1964) Both encounters demonstrated the opposing, and representative,

positions held by Rogers and Skinner in what Professor Morris Bigge calls "the two most prominent families of contemporary learning theory." (Bigge, 1964:49)

In the debate Skinner and Rogers each emphasized profound socio-political results that would ensue from the acceptance, or rejection, of his own approach to the problems of social control—"desired" society if accepted, or dire social consequence if rejected.

Skinnerian "operant conditioning" rests squarely in the behavioral tradition, a mechanistic approach which emphasizes the importance of stimuli from external environment, and relies upon observable physical movement. B. F. Skinner sees man as an organic machine. (Skinner, 1953:46) In his attempt to reduce human psychology to physical terms, such concepts as individual purpose, spontaniety, meaning, and even consciousness are excluded. Skinner's methodology requires manipulating the environmental stimuli on the individual in such fashion that it will reinforce movement toward a predetermined goal. In a novel, *Walden Two* (Skinner, 1948) he visualizes a society in which people are controlled by a hierarchy of experts. The experts decide what is "good," and they prescribe appropriate conditions of living and learning.

Rogers, aligning himself specifically with Abraham Maslow (Wann, 1964:109), declares himself for the Third Force Psychology (Goble, 1971), which embraces elements variously labeled Phenomenology, Existential Psychology, and Gestalt-field theory. Such a position emphasizes experience, insight and personal meaning. Carl Rogers says, "The assumption is that the subjective human being has an importance and a value which is basic: that no matter how he may be labeled or evaluated he is a human person first of all and most deeply. He is not only a machine, not only a collection of stimulus-response bonds, not an object, not a pawn." (Rogers, *et. al.* 1967:2) The object of Rogers' method, which is non-directive and non-manipulative, is to permit each individual to develop himself along lines of self-selection. Rogers is convinced that an open social situation, characterized by mutual trust and individual growth, will result from his approach to interpersonal relationships.

A distinctive orientation toward the control of human action is central in the thought of each psychologist. Thus, the divergent psycho-philosophical positions of Skinner and Rogers offer material with which one might approach a problem of current significance. Within the general issues of cultural transmission, a specific question concerns the *necessity* of using greater and greater degrees of control. (Augenstein, 1969) Modern technological advances have placed at man's disposal an increasing array of agents capable of manipulating human beings. Through techno-psychological persuasion by psycho-biological and pharmachological means as well as by other technological means such as mass communication, it is technically conceivable to create a sort of painless concentration camp of the mind for entire societies—"artificial cultures," as it were. Both Skinner and Rogers acknowledge this technical potential. Skinner advocates immediate and maximum use of technology in behavioral control; Rogers strongly denounces such action. The current possibility of carrying either approach to an extreme is the fact which gives these two approaches such significance.

The possibility of the use of such techniques thrusts into prominence social, ethical, and religious questions of the greatest importance. Every science sooner or later gets into areas where major questions of value arise. Most scientists attempt to evade value decisions by assigning to themselves a purely instrumental role, leaving the cultural use of their discoveries to the decisions of others. Skinner and Rogers' suggestions regarding educational issues are, however, evidence that, in one sense, neither pyschologist is uncommitted in cultural matters; neither is neutral. The diametrical nature of their suggestions is, nevertheless, very confusing to the educator. Their conflicting descriptions of man and his behavior may lead the educator to question the cultural reality of both theories.

Not only professional educators, but most people of today, are disturbed and confused. They do not know where to place their loyalties. Although they give lip service to the concept of freedom, a socialization process (which takes place in both formal and informal educational settings) has led many to believe that all things, including man's thinking and behavior, are completely determined by forces over which men have no control. The behavioristic orientation in psychology deserves much of the credit for instilling this view. (Misiak and Sexton, 1966:425) Much current opposition to it comes from a phenomenological orientation.

Possibly the conflict of these two psycho-philosophical orientation is actually a current manifestation of a struggle which has been going on for thousands of years. The basic elements of man's nature, and of his potential for modes of action, have never been agreed upon. The increasing intensity of today's

social problems leaves no doubt that it is essential for educators, if not for all people, to see clearly the possible alternatives for social direction. The Skinnerian and Rogerian positions offer the educator divergent directional emphases for the practice of his profession. These positions hold contrasting views concerning the nature of man and different methods of educating him. The adoption of one approach may produce a completely different kind of society from that which may be produced from adopting the other approach. In *Walden Two* (Skinner, 1948) Skinner advocates a technically controlled society, ruled by "Managers." He states plainly his rejection of the Western democratic tradition. (Skinner, 1953:9-10) Rogers repeatedly argues, from a humanistic perspective, against such scientifically controlled utopianism. (Rogers, 1961:384-401; Rogers and Skinner, 1956: 1057-1066)

Within an analysis of the Skinner-Rogers dichotomy, one must first delineate the boundary between the two theories. Of equal importance is the delineation of the boundary between each theory and social reality. The obvious assumption is that any theory, to some degree, is a reduction of reality. Only after clearly drawing the above delineations is it possible to consider the possibilities of a working relationship between the two theories. Such a relationship is controversial at present. T. W. Wann names several scholars who think "coexistence" is possible. (Wann, 1964:v) Is "coexistence" a valid term when considering diametrically opposing philosophical views? Snygg discusses the confusion resulting in an attempt to adhere to both positions. He says this attempt is analogous to "predicting an eclipse from a synthesis of Ptolemaic and Copernican facts, with the earth going around the sun while the sun went around the earth and both stood still." (Kuenzli, 1959:7) Yet, Rogers says, "There is a lot about behaviorism that I accept, I was simply trying to go beyond it." (Wann, 1964:157) "Coexistence" of these opposing psycho-philosophical positions seems to be impossible unless a "complementary" relationship can be established. As previously stated, an effort to study this relationship must consider the views of both men on two levels, theoretical and practical.

The method of research used in this study, dealing primarily with ideas, is exploratory in design. (Sellitz, *et. al.*, 1959:51) The writings of B. F. Skinner and Carl Rogers are primary sources. Other sources in the behavioral and physical sciences contribute to the process of analysis and elaboration. At the outset, the stated purpose of the study is to analyze the relationship between the Skinnerian and Rogerian positions and thereby to strengthen one or the other of two hypotheses: (a) The relationship is one of antithesis; (b) The relationship is one of complementarity. In other words, is an educator, who is committed to one theory, precluded from using the other? Or, can an educator be committed to both theories simultaneously as he practices his profession?

Organization of the study will be accomplished by dividing it into the following sections. In sections two and three the Skinnerian and Rogerian theories will be analyzed by selecting and explicating key elements and delineating the general, comprehensive, theoretical position of each. In sections four and five each man's thoughts on education will be presented. In chapters six and seven attempts will be made to infer some of the issues if each theory were accepted totally and applied to a real social setting. The concluding section will contain educational implications of the study.

## SKINNER ON HUMAN BEHAVIOR

In the fall of 1971, an intensification of interest in B. F. Skinner and his work was experienced, especially in certain educational circles. The occasion of renewed interest was the publication of his book, *Beyond Freedom and Dignity*. (Skinner, 1971) The title alone, not to mention the book's message, is disturbing to people who favorably view the traditional democratic values of American society. Skinner is, in this book, stating once again the same thesis he has held since the publication of *Walden Two*. (Skinner, 1948) Freedom and free will are no more than illusions; whether man will admit it or not he is controlled completely by external influences. A consideration of this fact permits only one reasonable course of action. A scientific study of behavior reveals techniques to use in designing a utopian society in which man can only behave in modes beneficial to both himself and the society. Skinner claims to have made such a scientific study of behavior, and he believes an absolutely predictable society can be designed. A Harvard professor, Skinner possesses credentials which guarantee him a large audience.

A writer in *Time* magazine says:

> Skinner is the most influential of living American psychologists, and the most controversial contemporary figure in the science of human behavior, adored as a messiah and abhorred as a menace. As leader of the "behavioristic" pyschologists, who liken man to a machine, Skinner is vigorously opposed both by humanists and by Freudian psychoanalysts. (*Time*, September 20, 1971)

The term most associated with Skinner's brand of behaviorism is operant conditioning. Although he was influenced by earlier S-R theories, within his theoretical framework Skinner has a particular focus. The emphasis is upon the response and not upon the stimulus. His intent is to show that the cause of behavior is the consequence which follows the behavior, while avoiding notions of purposive behavior. A complicated terminology is created with which to state the theory. Following are some important terms:

1. *Operant* is used to distinguish between a reflex and a response. Skinner writes, "The unit of a predictive science is, therefore, not a response but a class of responses. The word 'operant' will be used to describe this class. The term emphasizes the fact that the behavior *operates* upon the environment to generate consequences." (Skinner, 1953:65)
2. A *response* is illustrated by a single instance in which a pigeon raises its head. The behavior called raising the head is an *operant*.
3. In a pigeon experiment, food for the pigeon is the *reinforcer*.
4. Giving food to the pigeon when a certain response is observed is called *reinforcement*. The *operant* is the "property" upon which the reinforcement is contingent; for example, it could be the height to which the pigeon must raise its head.
5. The change in frequency with which the pigeon raises its head to this height is the process of *operant conditioning*.
6. A point, important to Skinner, is that operant behavior is *emitted*, not elicited. (Skinner, 1953:107) Skinner is clear in his theoretical minimization of stimuli in behavioral study. He believes stimuli are constantly acting upon the organism, but the functional connection is not like that in the reflex.
7. *Contingency* is a connecting word, a linkage concept, used in developing the behavioral theory. A contingency contains stimulus, response, and reinforcement; all three must be specified.
8. *Discrimination* is what connects the behaving organism to a given set of contingencies. The concept of discrimination has great importance in Skinner's theoretical framework, as well as in the practical control of behavior. When a discrimination is discovered, or established, the experimenter (or controller) may alter the probability of a response by manipulating the discriminative stimulus. (Skinner, 1953:107-108)

Skinner discusses the process of discrimination and discriminative stimuli at length. (Skinner, 1953:107-108, 134, 261-264, 285; 1966:18, 19) The process of discrimination is observed when a response is reinforced in the presence of one property and extinguished in the presence of others. When this process is established the experimenter has obtained a powerful control over the subject. The discriminative stimuli which improve the efficiency of behavior under certain contingencies of reinforcement are important, but they are not to be confused with the contingencies themselves. Care must also be taken to distinguish the effects of the stimuli from the effects of the contingencies. (Skinner, 1966:29) Consider the behavior of an organism which seems to evaluate a situation before taking a given action; the observed pattern of behavior merely resembles the behavior of an organism whose behavior has been shaped by prolonged exposure to such situations.

As mentioned earlier, in his effort to avoid all notions of purposive behavior, Skinner employs a peculiar language which is, at times, exceedingly difficult to understand. Consider the following example. He is arguing that behavior which might be called "following a plan" or "applying a rule" cannot be observed when behavior is considered to be a product of the contingencies alone. He admits that rules may be formulated from reinforcing contingencies, and once formulated they may be used as guides; yet, the direct effect of contingencies is different. (Skinner, 1966:29) Skinner cites the case of a person who declares he is speaking correctly because he is following the rules of grammar:

> When a man explicitly states his purpose in acting in a given way he may, indeed, be constructing a contemporary surrogate of future consequences which will affect subsequent behavior, possibly in useful ways. It does not follow, however, that the behavior generated by the consequences in the absence of any statement of purpose is under the control of any comparable prior stimulus, such as a felt purpose of intention. (Skinner, 1966:29)

All behavior is caused behavior. For Skinner, a cause is a change in an independent variable and an effect is a change in a dependent variable. A cause and effect connection becomes a functional relationship within his theory. He is not interested in how a cause produces its effect, only that different events tend to occur together in a certain order. Any condition or event that can be shown to have an effect upon human behavior must be taken into account. Skinner believes that by discovering and analyzing these causes he can predict behavior, and to the extent he can manipulate the "causes" he can control behavior. (Skinner, 1953:23)

Psychologists using the theory of operant behavior interest themselves not only in how organisms behave, but they desire to supplement such narrative with consideration of why they behave in certain ways:

> What is required is an analysis of the conditions which govern the probability that a given response will occur at a given time. (Skinner, 1966:16)...psychology is concerned with establishing relations between the behavior of an organism and the forces acting upon it. (Evans, 1968:21) We need a complete account at the external level. After all, the organism cannot initiate anything unless you assume it is capable of whimsical changes. As a determinist, I must assume that the organism is simply mediating the relationships between the forces acting upon it and its own output, and these are the kinds of relationships I'm anxious to formulate. (Evans, 1968:23)

The rate of responding is considered extremely important data in such scientific analysis. Changes in the rate of responding are directly observed and accurately recorded. Such data are appropriate to scientific formulations. Under skillful experimental control uniformity and precision can result. The cumulative record of this process is the essence of operant conditioning.

Skinner maintains that verbal communication is not a substitute for the arrangement and manipulation of environmental variables. (Skinner, 1966:23) He distrusts efforts to study or shape behavior which rely on verbal communication. On the other hand, some psychologists rely partially, and some exclusively, upon verbal exchange. Skinner argues that such an approach is usually favored by psychologists who formulate their subject matter in mental terms. He deplores such practice because precision and control are not maximized. He sees no reason to believe a description of the contingencies of reinforcement should necessarily have the same effect as direct exposure to the contingencies themselves. He doubts if a subject can accurately describe the way in which he has been reinforced. Even when the subject has been trained to recognize a few simple contingencies he is then unable to identify or describe new or complex ones. Furthermore, certain verbal contingencies between the subject and experimenter would have to be taken into account—for example the experimenter's tone of voice. How could such contingencies be accurately measured or controlled? (cf. Skinner, 1966:12-32)

Skinner's theory emphasizes technology, and with this emphasis comes a technical terminology. (Skinner, 1971:3-24) He sees great value in the careful use of his terminology. For example, the concept of *reflex* is good because it carries no overtones of the consequences of a response. The adaptive aspects of behavior are minimized by using the term reflex. The term *operant* is introduced to distinguish between reflexes and responses operating directly on the environment. He would avoid terms such as "instrumental" or "reward" because they have purposive overtones. One should avoid such expressions as "the rat uses a lever to obtain food," or "the pigeon is rewarded for behaving in a certain way." *Reinforcement* is a better term because it simply denotes the strengthening of a response. Even when using the specified terminology, care must be constantly maintained because the concept of purposiveness will tend to creep back into descriptive statements. For example, "The pigeon was reinforced *for* pecking the key" should be rephrased. (Skinner, 1966:15)

In using this theory the experimenter controls important consequences for the subject. The manipulator can increase the probability of some behavior occuring again by reinforcing it, or he can decrease this probability through some form of punishment or by instituting a procedure labeled extinction. Skinner opposes the use of punishment. (Skinner, 1953: 182-194; 1971:60-100) Reinforcement is a manipulation of environmental factors that increases the rate of response which it follows. Positive reinforcement requires use of a stimulus desired by the subject. Negative reinforcement requires the environmental removal of an undesirable factor, undesirable from the subject's perspective. The process of extinction may be initiated by the manipulator in two possible modes. Extinction may occur with the presentation of disturbing stimuli (Skinner, 1953:58), or it may occur

when the designated behavior is no longer reinforced. (Skinner, 1953:69)

The efficiency of behavior modification may be maximized by following a few simple rules: (cf. Meacham and Wiesen, 1969:38-46)

1. Define the consequences (the reinforcers or punishers) only in terms of how they affect the subject, not in terms of the experimenter or of other subject's behavior.
2. Recognize that the effects of reinforcement or punishment are automatic, that is, verbalization in the form of contracts or instructions are not necessary.
3. Choose consequences that are closely related to the desired terminal behavior.
4. Be consistent, a necessity for precision and predictability.
5. Arrange schedule of reinforcement so that consequences follow closely the behavior on which they are contingent.
6. Use care in choosing the amount of reinforcement for the specific behavioral change, providing the frequent reinforcement needed for new behavior.
7. Carefully program the entire process of behavior modification so the subject is able to move smoothly from one step in the process to the next.

B. F. Skinner states repeatedly that certain assumptions are essential for the study and practice of his theory. (Skinner, 1953:9, 17, 45-58; 1971: 184-215) The basic assumption concerns the nature of man. In Skinner's view, man is a physical, passive product of his environment. This physical organism is a responding, not a thinking, animal, and it can and should be studied essentially as a physical scientist studies a stone or a tree. Man is more complex than a stone, a complexity partially characterized by physical movement—thus the analogy "man the machine." "Man is a machine in the sense that he is a complex system behaving in lawful ways, but the complexity is extraordinary." (Skinner, 1971:202) (cf. Skinner, 1953:45-58) The physical organism, man, is studied only by observing overt reactions. Empirical restrictions of scientific method preclude attempts to analyze the inner workings of the machines. Psychology thus becomes a study of complex patterns of physical movements. "I would define behavior as the movement of an organism in space with respect to itself or any other useful frame of reference." (Evans, 1968:8) Skinner feels that a description of man as a machine is an "oversimplification." (Evans, 1968:69) He says, "If by 'machine' you simply mean any system which behaves in an orderly way, then man and all other animals are machines." (Evans, 1968:24) The element that seems to be emphasized in his basic assumption underlying his theory is that the physical movements of man are connected by invariant relationships, that is, all behavior is reaction according to lawful patterns. Whimsy or caprice are never observed in behavior. Behavior which appears irrational is indeed law obeying; the environmental cause has not yet been identified.

> The hypothesis that man is not free is essential to the application of scientific method to the study of human behavior. The free inner man who is held responsible for the behavior of the external biological organism is only a prescientific substitute for the kinds of causes which are discovered in the course of a scientific analysis. (Skinner, 1953:447)

Passive man, studied as a group of physical movements, does not have attributive characteristics such as cordial, haughty, helpful, heedless, hard-hearted, or humorous. According to Skinner, if the psychologist uses such adjectives a focus is placed on some "inner" entity that doesn't really exist; at least if it does exist it is not available for scientific study. To use such terms results in confusion. The pyschologist, thinking in terms of "aspect-description" (certain attitudes possessed by his subject) fails to advance the techniques of control. By using the "functional analysis" of physical action both the experimenter and the subject are placed within a formulation which contributes to precision, both in prediction and control. (Skinner, 1953:194-200)

The definition of the nature of man as totally passive removes any use of such concepts as purpose. Within the theory attempts to remove all suggestion of teleology are constant. Skinner considers Thorndike's Law of Effect a step in the right direction. Simultaneous occurence of a response and certain environmental events changes the organism and increases the probability that the same sort of responses will occur again. The response has not been altered. By emphasizing change in the organism, Thorndike's principle "made it possible to include the effects of action among the causes of future action without using concepts like purpose, intuition, expectancy, or utility." (Skinner, 1966:12; 1953:60-62) Consider the case of a piano virtuoso. He did not become a great pianist because he had the desire, ambition, or purpose of doing so. His unusual ability to play scales smoothly is not the result of intention. According to the theory of operant conditioning, the smoothly played scales "select skilled movements." "A pianist neither acquires nor

executes the behavior of playing a scale smoothly because of a prior intention of doing so. Smoothly played scales are reinforcing for many reasons, and they select skilled movements." (Skinner, 1971:204) The behavior of the pianist is the result of specific environmental forces which have reinforced the observed behavior.

Defining man as merely a physical organism and limiting its study to patterns of physical movements results in rather intricate explanations of certain psychological conceptualizations. Self, self-knowledge, self-control, awareness, and responsibility are examples. Such concepts are important in some other psychological theories, especially that of Carl Rogers. Although they would be considered peripheral to Skinner's theory, he does not ignore them.

A self is a repertoire of behavior appropriate to a given set of contingencies. (Skinner, 1971:199) Since an organism may display various patterns of behavior it may possess many selves. (Skinner, 1971:199) In discussing self-control he says that a person may control his own behavior if the "individual can identify the behavior to be controlled." (Skinner, 1953:229) Complications rise because if one allows the individual to manipulate external variables then the status of "private events" must be discussed in a science of behavior. (Skinner, 1953:229)

> A purely private event would have no place in a study of behavior, or perhaps in any science; but events which are, for the moment at least, accessible only to the individual himself often occur as links in chains of otherwise public events and they must then be considered. In self-control and creative thinking, where the individual is largely engaged in manipulating his own behavior, this is likely to be the case. (Skinner, 1953:229)

Skinner explains that the concepts of self-knowledge and self-control imply two selves. The self knower is a social product; the known self comes from other sources. The controlling self is of social origin; the controlled self is of genetic origin. (Skinner, 1971:199) These selves are not persons; they are observed patterns of behavior exhibited by the same physical organism under different stimuli and contingencies of reinforcement.

Skinner mentions various aspects of self-knowledge, ways in which man observes himself and his existence, then writes:

> Any analysis of human behavior which neglected these facts would be defective indeed. And some analyses do. What is called methodological behaviorism limits itself to what can be publicly observed; mental processes may exist, but they are ruled out of scientific consideration by their nature. (Skinner, 1971:190) The dimensions of the world of mind and transitions from one world to another do raise embarrassing problems, but it is usually possible to ignore them, and this may be good strategy... (Skinner, 1971:12)

The environment acts upon the organism and the organism reacts. "Reflex" is closer to the spirit of the theory than "deliberate action." Skinner states clearly that the behavior of the organism does not depend upon that organism's awareness of its environment. Awareness is something that is imposed upon the individual by the society. (Evans, 1968:7) Other statements concerning awareness are:

> Awareness is a reaction to a part of the environment—like any other behavior—but it happens to be a part of the environment contained within the organism itself. (Evans, 1968:8) Awareness may help if the problem is in part a lack of awareness, and insight into one's condition may help if one then takes remedial action... (Skinner, 1971:192)

Closely related to the idea of awareness is the conceptualization of voluntary and involuntary behavior. Skinner writes:

> The relation between the discriminative operant and its controlling stimulus is very different from elicitation. Stimulus and response occur in the same order as in the reflex, but this does not warrant the inclusion of both types in a single 'stimulus-response' formula. The discriminative stimulus does not elicit a response, it simply alters a probability of occurence. The relation is flexible and continously graded. The response follows the stimulus in a more leisurely fashion, and it may be intense or feeble almost without respect to the intensity of the stimulus. This difference is at the root of the classical distinction between voluntary and involuntary behavior....In the present analysis we cannot distinguish between involuntary and voluntary behavior by raising the issue of who is in control. It does not matter whether behavior is due to a willing individual or a psychic usurper if we dismiss all inner agents of whatever sort. Nor can we make the distinction on the basis of control

> or lack of control, since we assume that no behavior is free. (Skinner, 1953:110-111)

Skinner goes on to explain that when all the relevant variables have been arranged, an organism either will or will not respond. If it responds in a certain way then it can; if it does not respond in that way then it cannot. The organism will in fact respond in the only way it can, as determined by that specific set of contingent variables.

Possibilities of self-conflict are not discussed within the theory. According to the theory, the organism is a different self each time it is observed in different environmental situations because the behavior pattern is different. No single instance of action, or pattern of behavior, could be more compatible with the total existence of the organism than any other pattern since any pattern observed is the only possible response permitted by the environmental factors. No conflict between the organism and a pattern of action would seem possible within the theory because the "self" of the organism *is* the pattern of action. Yet, in discussing self-knowledge and self-control, Skinner implies the simultaneous experiencing, by the organism, of two conflicting selves. The controlling self represents the interests of others and the controlled self represents the interests of the individual. (Skinner, 1971:199)

Concepts like "conflict" and "control" appear intricate within a deterministic theoretical formulation. Within the theory, both "others" and "the individual" are animals of no purpose. Presumably, a theoretical distinction is made between "interests" and "purposes" relative to human action.

If the student of human behavior can conceive of complete environmental determinism, the only possible behavior is that behavior which is observed. The notion of responsibility is dropped along with the idea of free will as an inner causal agent. Skinner believes that "personal responsibility" is associated with certain traditional techniques of controlling behavior. These traditional techniques which generate "a sense of responsibility," or "an obligation to society" are relatively ill-adapted to their purpose. When compared to the techniques of operant conditioning they appear extremely inefficient. (Skinner, 1953:116; 1971:60-100) The behaviorist position, according to Langer, is undoubtedly the most scientifically respectable psychology of today. (Langer, 1964:12) Skinner is considered the current leader.

> He has been the subject of a Time magazine cover story, a New York Times interview and editorial, a Newsweek education column, such national television shows as Today, Dick Cavett, David Frost, Firing Line and CBS Morning News. His new book was accepted and praised in the August issue of the widely circulated magazine, Psychology Today. The American Psychological Association gave him its annual award in September and hailed him as "a pioneer in psychological research, leader in theory, master in technology, who has revolutionized the study of behavior in our time. A superlative scholar, scientist, teacher and writer." According to the Times, his colleagues have judged him "the most influential psychologist in the country." (Sennett, 1971:1)

Skinnerian theory has gone well beyond earlier forms of behaviorism. Some debt to Watson, Thorndike, Pavlov, and others is evident. The same ideals of quantification of behavior and systematic objectivism govern research projects and theoretical formulation. Operant conditioning has a different focus than does earlier behavioristic theories. More evident than this difference, however, is the complete separation of Skinner's thought from all "non-behavioral" psychology. Concepts found useful by psychoanalytic, existential, or gestalt psychologists are irrelevant to the operant theory. The following are some of Skinner's reactions to concepts which have some significance in other theories:

> I don't see any reason to postulate a need anywhere along the line. (Evans, 1968:10) The important thing is to analyze the contingencies of reinforcement, not the needs to be satisfied. (Evans, 1968:10) Emotion, so far as I am concerned, is a matter of the probability of engaging in certain kinds of behavior defined by certain kinds of consequences. (Evans, 1968:11) I think an analysis which deals with verbal behavior without appealing to mental concepts such as meaning is a step in the right direction. (Evans, 1968:15) As far as I'm concerned, the organism is irrelevant either as the site of physiological processes or as the locus of mentalistic activities. I don't believe the organism contributes anything to these overall relationships beyond the fact that it is the behavior of an organism we are studying. (Evans, 1968:22)

Skinner is not interested in "the fictions or metaphorical apparatus" which Freudians feel they observe in the organism. "So far as I'm concerned, these are versions of some sort of primitive animism." (Evans, 1968:7) He opposes stating

behavioral linkages in terms of feelings, emotions, recollections, and memories. His interest is in a science of behavior that is a part of biology. (Evans, 1968:7; cf. Skinner, 1964:79) Skinner's conclusion is that "in its very brief history, the study of operant behavior has clarified the nature of the relation between behavior and its consequences and has devised techniques which apply the methods of natural science to its investigation." (Skinner, 1966:31)

## ROGERS ON HUMAN BEHAVIOR

In defining man, Carl Rogers puts great emphasis upon "the experiencing person." His theory of personality development represents an approach to psychology that falls under the generic classification of phenomenology. Phenomenology relates to the individual's unique (phenomenal) world of experience. In this discussion, Rogers' theory will be limited to psychological constructs necessary for minimal presentation and understanding of this thought. Within his frame of reference man's subjective, conscious experiences are a fundamental source of information. Notions of self-concept, conscious awareness, and interpersonal knowing are examples of important Rogerian concepts.

The assumption that man is a physical, feeling, consciously experiencing organism is essential in this theory. (Rogers, 1961:118) Rogers writes of "deep organismic feelings." Sometimes he uses a term which has been popular on college campuses, "gut feeling." Precise definition of this term is rather difficult. The implication seems to be that an individual can know something that is not mentally known. It is an "irrational" knowledge which in some way brings the organism closer to reality than knowledge resulting from mental activity. One might be tempted to translate this idea into physical sensations of the body. Such a "translation" of Rogers' idea would place it in proximity to the organic machine reacting to environmental stimuli that we met in Skinner's theory.

Rogers states clearly that he wishes to "go beyond" the machine analogy, so his concept must be seen, at least by himself, as theoretically different from that of Skinner. (Wann, 1964:157; Rogers, *et. al.*, 1967:2) In his discussions of "awareness" and "self," Rogers seems to describe individual experience on a level somewhere between pure animal instinct and intellectually contrived conceptual patterns which have been socially imposed. The concept may be identical, or very similar, to the process described by Perls. (Perls, 1947) If one can experience a process, he may not be able to verbally express what has been experienced.

The reader may grasp some of Rogers' thought from the following quotation:

> In writing this book I have often thought of the idea expressed by a semanticist, that the true, the genuine, the real meaning of a word can never be expressed in words, because the real meaning would be the thing itself. If one wishes to give such real meaning he should put his hand over his mouth and *point*. This is what I would most like to do. I would willingly throw away all the words of this manuscript if I could, somehow, effectively *point* to the experience which is therapy. It is a process, a thing-in-itself, an experience, a relationship, a dynamic. (Rogers, 1951:ix)

Much of Rogers' theory centers in the construct of the self. (Rogers, 1951:15) The self is an abstraction similar to the theological conception of the soul. The self represents the core of the individual. "As the infant interacts with his environment he gradually builds up concepts about himself, about the environment, and about himself in relation to the environment." (Rogers, 1951:498) Rogers writes, "We may look upon this self-structure as being an organization of hypotheses for meeting life—an organization which has been relatively effective in satisfying the needs of the organism." (Rogers, 1951:191) Rogers, in his concept of *self*, seems to mean the locus of evaluation, decision, and life of the individual. (Rogers, 1961:119)

In his defintion of man's behavior, Rogers parallels existentialist thought in some ways. Indeed, he mentions Kierkegaard on several occasions, pointing out with surprise how clearly the Danish philosopher seemed to picture what Rogers himself experiences in his study of psychology. (Rogers, 1961:110) The similarity between existentialism and Rogerian theory seems to be the belief in man's intrinsic ability to direct his own process of development. Rogers' optimistic view of man's existence separates his thought from that pessimistic view commonly associated with the thought of some existential philosophers.

Rogers' thought can be identified by a positive process in man's development; possibly the most important concept in Rogers' theory is that of process. Students often consider the self his most

important concept, but in Rogers' thought, the self *is* the process. To overemphasize the concept of process in a study of Rogers' theory would be difficult because it permeates all his thought. He believes that truth exists in the "process of becoming"; individual creation of a tentative personal truth through action is the essence of personal commitment. His thought parallels that of Michael Polanyi, whom Rogers quotes on occasion. (Rogers, 1969:271-275; Polanyi, 1958; 1959; 1966)

Rogers sees his explanatory scheme as a developing process which he derived primarily from his involvement in therapeutic relationships. As a result of these experiences, he also defines man as a process rather than a product. He sees a person "as a stream of becoming," (cf. Allport, 1955) "a fluid process, not a fixed and static entity; a flowing river of change, not a block of solid material; a continually changing constellation of potentialities, not a fixed quantity of traits." (Rogers, 1961:122) His extreme emphasis upon process and his consequent neglect of the social influences on behavior may be a weakness in the theory.

Another basic assumption in Rogers' definition of man is that man has basic tendencies toward positive behavior. To state that Dr. Rogers feels that impeccability characterizes man's basic nature might be too strong. Yet Rogers sees man "when he is his complete organism" as having no negative attributes. (Rogers, 1957:291-300; 1961:105) The organism who has a complete "awareness of experience" will not only be a unique individual, but will also blend harmoniously into a perfectly functioning society. (Rogers, 1951:524; 1957:291-300) This optimistic assumption is essential to his views of control and human behavior.

Rogers senses the following reactions to his assumptions of "a complete and fully functioning" organism:

> "Do you mean...man becomes nothing but a human *organism*, a human *animal*? Who will control him? Who will socialize him? Will he then throw over all inhibitions? Have you merely released the beast, the id, in man?" Rogers replies, "...the individual has actually *become* a human organism, with all the richness which that implies. He is realistically able to control himself, and he is incorrigibly socialized in his desires. There is no beast in man. There is only man in man, and this we have been able to release." (Rogers, 1961:105)

As mentioned previously, Rogers' theory is based upon his experiences in therapeutic situations. The environmental conditions in therapy may be compared in some respects to the laboratory environment upon which Skinner has based his theory. Certain influential factors in each "artificial" environment contrasts with influences on behavior as experienced in the larger society. In describing a therapeutic session Rogers uses the term "pure culture." (Rogers, 1961:111-112, 202) What can pure culture be? Rogers' theory deals with individual development, socialization, enculturation. Acculturation, the mixing of two or more cultures, has little or no importance within his context. Obviously his use of the word culture carries its own particular definition. A cultural anthropologist does not use the term as does Rogers.

In the daily life of the individual, thousands of influences that "reside within the social situation" prevent the self from fully experiencing its attitudes. (Rogers, 1961:111) Away from these social pressures, within the therapeutic relationship, within a "pure culture," the self can fully experience. During the limited time of the session "the person *is* his fear, or he *is* his anger, or he *is* his tenderness, or whatever." (Rogers, 1961:112) Rogers writes,

> The essence of some of the deepest parts of therapy seems to be a unity of experiencing. The client is able to experience his feeling in its complete intensity, as a "pure culture," without intellectual inhibitions or cautions, without having it bounded by knowledge of contradictory feelings; and I am able with equal freedom to experience my understanding of this feeling, without any conscious thought about it, without any apprehension or concern as to where this will lead, without any type of diagnostic or analytic thinking, without any cognitive or emotional barriers to a complete "letting go" in understanding. (Rogers, 1961:202)

Rogers refers to an "out-of-this-world quality," "a sort of trance-like feeling in the relationship from which both the client and I emerge at the end of the hour, as if from a deep well or tunnel." (Rogers, 1961:202) Clearly, "pure culture" means an absolute separation from cultural influence, an escape from "cognitive" and "emotional" inhibitions.

The punctual ending of the therapeutic sessions is evidence of external, or cultural, influence. If, indeed, the relationship were free flowing with no inhibitions it would continue for an indefinite period. Punctuality is only one of the most obvious examples which could be used to deny the possibility of

experience which is absolutely devoid of cultural influence. Observation of Rogers and a client during a therapeutic session would undoubtedly reveal a variety of "cultural elements" such as seating arrangements, use of chairs, verbal expressions and so forth. The results of years of socialization can hardly be doffed as one might remove a pair of overshoes upon entering a room.

In his discussion of the therapeutic climate, pure culture, Rogers seems to be trying to emphasize the importance, from his point of view, of seeing his client as a subject rather than as object, and of focusing upon change in that subject. Rogers may be picturing a theoretical ideal which in fact cannot be located in social experience. The intensity of socialization pressure may be increased or decreased. An analysis of the Skinnerian and Rogerian approaches to the control of human behavior raises a fundamental issue. To what extreme *can* the intensity of socialization be increased or decreased within everyday social experience? What is the range of intensity which may actually be experienced by an individual within the evolutionary process of cultural dynamics?

Two questions, the importance of which will become explicit later, must be raised in connection with Rogers' implicit assumptions in "pure culture." Is it possible to totally escape from cultural influence, even for an hour, or does one carry along, both overtly and covertly, numerous cultural artifacts to the session? Second, if it were possible to transcend one's culture, how would this "out-of-this-world" experience pertain to ordinary cultural processes upon return from the trance into everyday social life?

Regardless of whether or not one can actually experience the "pure culture" which Rogers describes, the purpose of this ideal is clear. Rogers' effort is to design a certain environment for the self. The reader must see clearly how Rogers uses the idea of self in order to appreciate his desire for a "pure culture."

In Rogers' definition of man, he sees the SELF as that inner core of the individual which is somehow separated from the environment. The process by which this self is constructed he calls awareness. This term seems to indicate an ability of the individual organism to distinguish between what that individual is experiencing and what other individuals seem to be experiencing. In awareness, Rogers also seems to indicate an individual's ability to discriminate within his own experiencing.

His argument is that one could watch a person moving toward greater self-awareness and see the following: he

> . . . gradually reduces the intensional quality of his reactions—his tendency to see experience in absolute and unconditional terms, to overgeneralize, to be dominated by concept or belief, to fail to anchor his reactions in space and time, to confuse fact and evaluation, to rely on ideas rather than on reality testing—and moves toward a more extensional type of reaction. This may be defined as the tendency to see things in limited, differentiated terms, to be aware of space-time anchorage of facts, to be dominated by facts, not by concepts, to evaluate in multiple ways, to be aware of different levels of abstraction, to test his inferences and abstractions by reality insofar as possible. (Rogers, 1951:144)

Rogers believes that as the infant develops he distinguishes a SELF. But the parents and others also impose conceptual patterns upon the infant. As long as the developing child can keep thinking of all experiences which enhance his self-image as positive and all experiences which threaten his self-image as negative, he is psychologically healthy. As soon as the conceptual patterns, which are imposed by others, become a part of the evaluation of the SELF, the individual can experience difficulty. He is told, "You are a good boy." "You are a bad boy." "What you did this morning was good." "What you did this afternoon was bad." All kinds of evaluations, made by others, become a part of the infant's perceptual field. "Social experiences" become mixed up with his own private experience. This results in what Rogers calls a "distorted symbolization of experience." Because of social pressure, the individual begins to deny to his own awareness some of his actual experiences. (Rogers, 1951:498-499)

What the individual is actually experiencing is being filtered through imposed conceptual patterns. The individual increases the confusion by distorting his experience in the effort to fit it into the prescribed pattern. Through the practice of distorting experience, in the effort to fit interpersonal impositions, the organism becomes a "hollow" entity which, in Rogers' theoretical description, very much resembles the organic machines described by Skinner's theory. Rogers thinks that in the presence of some people we never know exactly with whom we are. We may view various facades. We wonder what the individual really feels, indeed sometimes we wonder if *he* knows what he feels. (Rogers, 1961:342)

Rogers advocates self-enhancement. Self-

awareness is an element in the process toward the goal of greatest realization of all potentials of the individual. In order to counteract or minimize the self-destroying results of socialization, Rogers recommends a "safe environment" for the individual whose self-image and self-awareness has suffered from over socialization. The "pure culture" is such a safe environment in Rogers' scheme. A climate can result from lack of cultural design in which the individual feels less threatened if he does not experience his feelings in culturally-designed patterns. The individual, therefore, decreases the denial of his own feelings and thus moves toward awareness.

> He moves from generalizations which have been found unsatisfactory for guiding his life to an examination of the rich primary experience upon which they are based, a movement which, exposes the falsity of many of his generalizations and provides a basis for new and more adequate abstractions. (Rogers, 1951:143)

Little by little the individual finds that it is not only possible but extremely satisfying to accept his own self and self-awareness as the evaluation locus of his actual experience.

When this happens, values no longer are fixed absolutes; existence is no longer threatening; the individual can relax and examine his experience with an open attitude because he is not locked into a conceptual system. He does not feel the constant need for defense. (Rogers, 1951:151) Rogers writes,

> There is no longer the firm, tight gestalt which is characteristic of every organization under threat, but a loose, more uncertain configuration. He begins to explore his conceptual field more and more fully. He discovers faulty generalizations, but his self-structure is now sufficiently relaxed so that he can consider the complex and contradictory experiences upon which they are based. (Rogers, 1951:193)

In this process the person comes to *be*, in awareness, what he *is* in experience. Congruence is the term Rogers uses to indicate an accurate matching of experience and awareness. (Rogers, 1961:339) he gives the following example of incongruence: A man becomes angrily involved in a group discussion. His face flushes; he speaks in an angry tone; he shakes his finger at another person. When one of the group says, "Well, let's not get angry about this," the fellow replies, "I'm not angry; as a matter of fact, I don't have any *feeling* about this at all! I was just pointing out the facts." Of course, the other men laugh. To them he was experiencing anger at the physiological level. Probably several factors are involved in the man's refusal to consciously accept this experience. Yet, evidence exists that incongruence exists between his experience and his awareness, and between his experience and his communication. Rogers states that, at the moment, the degree of congruence may not be evaluated by the person himself. (Rogers, 1961:340)

Rogers feels that behavior is not based directly on something called reality, but rather upon the individual's perception of that reality. This distinction is essential in the study of human behavior. "It is noted that behavior is postulated as a reaction to the field as perceived. This point is proved every day in our experience, but it is often overlooked. The reaction is not to reality but to the perception of reality." (Rogers, 1951:492) A mirage will cause a thirsty man to struggle forward in the desert. The struggle is "real" action, just as real as it would be if the mirage were indeed a "real" lake of water. A man will work long hours for years, striving for money because he perceives the money as a source of security. The money may not in fact satisfy his need. Regarding its motivation of human behavior, the mirage perceived as water, or the money perceived as security, operates just as efficiently as the "real thing" until the perception changes. Time is involved. A future or later perception changes the man's action with respect to the mirage. The perception must be accounted potent relative to behavior rather than "reality" or "lack of reality."

Rogers' view of potential human behavior contrasts sharply with the view of Skinner. Possibly this contrast is seen most clearly if the term responsibility is analyzed in each view. Skinner sees responsibility exclusively in the sense of an automatic physical response to environmental stimuli. Only upon this basis could he argue that an individual is no more responsible for the act of murder than for the act of coughing. Both are simply physical *re*-actions to the organism's environment. Skinner argues repeatedly against the use of individual responsibility as a concept in controlling human behavior. (Skinner, 1953:341-344; 1971:71-76) He not only excludes the concept from his theory, he vigorously opposes its use in any context.

On the other hand, responsibility is an important bit of Rogers' theoretical foundation. His entire theory rests upon the ability of the individual self to be aware of both itself and its environment and to respond efficiently. We gain a clearer understanding of Rogers' thought if we translate "responsibility" as

"ability-to-respond." (cf. Green, 1964) Rogers' ideas seem to parallel, very closely, much existential thought. He mentions both Kierkegaard and Buber several times. On occasions when he is describing the experience of the person, some of his conceptualizations are close to other existentialists, for example Sartre and Nietzsche.

In Rogers' therapy sessions, as a client becomes aware of the possibilities of actual choice, much of his feeling is similar to that described by Sartre as characteristic of existential choice. (Kaufmann, 1956:222-311) The individual may feel awesome responsibility, anguish, despair, abandonment, to use some of Sartre's terms. Of course, kinds of feelings as well as emotional depths as experienced by different persons may vary. A similar parallel can be seen between aspects of Rogers' description of the individual's experience in becoming confused when mixing imposed conceptualizations with personal experience, and that experience described in Nietzsche's term *resentiment*. (Kaufmann, 1967) Rogers' theory seems to rest its full weight upon the possibility that this "existential choice" is available to the individual experience.

Rogers' thought contrasts clearly with that of Skinner at this point. Skinner argues that the individual has no choice; the physical organism is an "it," possessing only a completely determined action pattern. Rogers' theory, while maintaining for the individual the existence of choice, seems to allow him the possibility of choosing to be manipulated. In some of Rogers' articles he seems to fear the advance of technical control as advocated by Skinner. Recognizing the possibility of Skinner's "world of control," he sees it as an extremely unpalatable choice.

Rogers cites gains in knowledge which indicate possibilities of increasing the amount of control over individual behavior. He even lists steps to consider in the process of developing this control. (Rogers, 1961:387) He tries to give an "objective picture" of such control, (Rogers, 1961:390) but he feels compelled to state his own opposition. He would equate *Walden Two* with Huxley's *Brave New World* and Orwell's *1984*. Rogers wants to feel that he is advancing science: "I feel that to the limit of my ability I have played my part in advancing the behavioral sciences..." (Rogers, 1961:391), but the thought that what has been learned could be used to turn man into a robot makes him extremely unhappy.

The humanistically-oriented attitude of Rogers toward the control of human behavior may be almost identical with that found in a statement by Sidney Jourard:

> A lot of knowledge about a lot of men, if it is possessed by a few, gives these few power over the many. Psychologists seek knowledge about men. Men consent to be studied by psychologists. The question is, who is being helped when psychologists study men? If I have knowledge about you, I can use this to my advantage, and against yours. If I have knowledge about myself, I can increase my freedom and my power to live my life meaningfully. If you have knowledge about me, I would like you to enlighten me, not control me. And I would like to know you. (Jourard, 1968: preface)

## SKINNER ON EDUCATION

B. F. Skinner has written a book, the *Technology of Teaching* (1968), in an effort to apply his theory of human behavior directly to educational practice. He rejects traditionally used "metaphors" such as "growth or development," "forming, shaping, or building" the individual. Traditional ways of viewing learning are also considered inadequate by Skinner. Examples are: we learn by doing, we learn by experience, and we learn by trial and error. (Skinner, 1968:1-8) Such ways of viewing education are to be avoided, not so much because they are wrong, but because he considers them incomplete. They do not fully describe the educational process as he defines it.

According to his theory, *all* learning takes place relative to three factors which, collectively, he has labeled "contingencies of reinforcement." Learning requires a situation in which behavior occurs, the actual behavior, and the consequences of that behavior. Doing, experience, and trial and error are representative of the three parts of a set of contingencies: doing emphasizes the response; experience, the occasion during which the response occurs; and trial and error, the consequences.

His educational theory, as does his general theory of behavior, centers in the concept of control. If learning is seen merely as the changing of behavior patterns according to environmental stimuli, then teaching is necessarily seen as the manipulation of the stimuli to control the change. Skinner esteems the precision of such control, especially when it is carefully designed to bring about specific terminal

behavior. He deplores the vague behavioral goals that have been used by educators. Terms such as "educating for democracy," "educating the whole child," and "educating for life" are familiar examples. How, exactly, are these nebulous goals to be reached? What is the exact behavior and necessary set of skills that are desired by those who recommend such goals?

Today's educational demands will not permit misty, cloudy design if the society is to survive. Skinner sees education as an extremely important aspect of our lives, and although his theory includes attention to the individual, the urgency of adopting his scheme is based upon soceity's needs rather than individual needs. His theory is designed to coordinate social productivity rather than to encourage idiosyncratic development. His central interest is in a kind of cultural transmission which is effected by using carefully planned methods. The precise design permits each individual one mode of behaving. If all behavior follows the prescription, the result will be an absolutely predictable society. Such a society is Skinner's intention rather than development of individual potential and the enhancement of personal experience. (Evans, 1968:68)

Skinner thinks that a carefully designed society will result in maximized individual development. His view is the exact opposite of Rogers' which contends that self-enhancement results in the optimum society. Skinner writes, "Education is perhaps the most important branch of scientific technology. It deeply affects the lives of all of us." (Skinner, 1968:19) Education, for him, is the effecting of an exact pattern of behavior in the life of each person. No longer can we permit the educational system to operate in outdated modes as directed by traditional conceptualizations. Educators can, and must, use currently available technology in the process of molding precise behavior patterns. The potential role of the educator in redesigning the society is tremendous.

Although Skinner is somewhat critical of the current use of traditional methods in education, he should, by no means, be associated with other educational critics. In some ways Skinner defends our educational system, and Dewey's ideas as well. He feels that American schools are suffering from overpopulation and from lack of popular support. Yet these schools are turning out many productive people. The schools of today are better than those of fifty years ago; earlier schools could not have solved current problems as well as they are actually being handled. Skinner simply feels that improvement is possible. (Evans, 1968:68)

Skinner, while declaring that educators have done a good job relative to the resources at their disposal and given the attitudes of the public towards them, holds that much more could be accomplished by changing to his approach. For example, the use of teaching machines might, in addition to increasing the effectiveness of educational methods, have a salutary effect upon educational philosophy. By placing themselves within, and by being subjected to, the educational patterns Skinner prescribes, both teachers and students will change their ways of thinking, and therefore, their ways of behaving. Skinner would not use, theoretically, the concept of "Thinking." For him, the use of such concepts confuses one who is attempting a scientific analysis of behavior.

A fundamental criticism of traditional methods used in controlling human behavior, especially common in traditional educational practice, centers in Skinner's conceptualization of aversive control. Teachers are committed to a philosophical stance which is based upon a "punitive system." Dropouts, truants, and vandals are by-products of this "aversive control." The traditional approach, characterized by a negative reinforcement pattern, is inefficient in producing the stated goals of education. For example, some teachers assign additional homework as "punishment" and excuse students from school work as "reward." By such procedure they reinforce kinds of behavior other than that indicated by the educators' declared goals.

Although now largely in disuse, corporal punishment is an example of aversive control. With its abandonment, teachers merely adopted other kinds of aversive measures, such as ridicule, scolding, sarcasm, criticism, incarceration, extra work, withdrawal of privileges, forced labor, and ostracism. Skinner maintains that "the student spends a great part of his day doing things he does not want to do." (Skinner, 1968:96) In such an educational environment, behavior has not been stated precisely in terms of educational goals; therefore, rather than movement toward the hazily chosen goals, the educational experience merely reinforces techniques of escape and avoidance. A "technology of teaching" advocates positive reinforcement of the precisely defined, desired behavior.

Since Skinner wishes to construct an environment in which the individual is manipulated toward a specific goal, some might see little basic difference between his approach and the coercive methods which have been used for generations in controlling behavior. Skinner distinguishes his approach by

tacitly holding some methods of control as non-coercive. That is, control by reward, or "reinforcement," is essentially not aversive. Whereas the teacher using the traditional coercive methods arranged for consequences of undesirable behavior, his plan focuses upon the teacher manipulating the consequences of desirable behavior. The teacher should not threaten the student with certain penalties contingent upon socially undesirable behavior; "You will be unable to get a job unless you do your school work well." Rather, the educational environment should be arranged so the student will be constantly, consistently, and immediately reinforced for the socially desired behavior. Within such theoretical argument the statement, "The problem is to induce people not to be good but to behave well" (Skinner 1971:67) makes sense.

Skinner mentions the schools set up by Neill, Tolstoy, Russell, and the social experiments of anarchists. (Skinner, 1968:102-103) He believes all failed. He considers them to be therapeutic, possibly, for youth who have been badly treated, but they are not "educational." Withholding punishment may help a child, but something more is needed. The missing ingredient is positive reinforcement which rewards the behavior of a socially adequate person.

Those educators who idealize an abstraction labeled "freedom" may fail to understand how Skinner is consistently able to advocate a technology of precise control, based on a deterministic science of human behavior, while holding that each man is absolutely unique. An educational theory which defines teaching as the arrangement of contingencies of reinforcement in such manner as to precisely and completely control the individual's behavior appears to be inimical to notions of freedom, inquiry, and originality. An understanding of Skinner's theory depends completely upon the adoption of his initial assumptions.

Skinner repeatedly states that individuals have no choice concerning who they are or what they do; each person is nothing more than the product of genetic and social influences. This kind of deterministic assumption is useful for the professional, argues Skinner, because it encourages him to look for causes. The attitude of the teacher who believes a student is governed by some inner faculty (for example, the self of Rogers' theory), or that the student acts by caprice, is not likely to look in the classroom environment for the influencing factors. Skinner believes such a teacher will be less able than the determinist to explain a given behavior; also, he would be less efficient in manipulating a student into the precise behavioral patterns which Skinner desires.

Further, Skinner points out that behavior labeled "free" or "non-conforming" is not necessarily desirable. How useful are the idiosyncrasies of the psychotic? A nightmare is original, but it is not useful in behavioristic psychology. Anarchists and rebels are not necessarily valuable to either themselves or their society. One can hardly deny Skinner's basic position: "A culture must remain reasonably stable, but it must also change if it is to increase its chances of survival." (Skinner, 1968:171) The idiosyncrasies which do arise in the behavior of individuals are sometimes useful and sometimes harmful. The valuable ones will be selected by the greater society and incorporated within its evolutionary development. With occasional statements, Skinner seems to agree, to some extent, with those who champion "freedom": "so long as obviously dangerous and harmful variations can be avoided or dealt with, anything which encourages individuality is probably a move in the right direction." (Skinner, 1968:172)

For one who holds consistently to the assumption of environmental determinism, as does Skinner, the individual can never be "free." The individual experiencing an awareness of himself in relation to the various elements of a particular situation, and then cognitively making an intelligent choice of behavioral alternatives, is precluded by the assumption of environmental determinism. If environmental conditions determine the individual's response, then the individual is absolutely *dependent*. He will be directed in his behavior by other people or he will be dependent upon "things." Skinner does not point out that such assumption and its resultant state of dependency may indeed cause the individual to feel dependent on *both* people and things. Skinner discusses the teaching of a child within a practical, everyday situation. The example he chooses concerns the problem of the child getting to school on time. Possibly the child is dependent upon his parents' direction. "It's time to go." Or, "Hurry up or you'll miss the bus." The child can only be "free" from this kind of interpersonal direction if he becomes dependent upon clocks or other stimuli which would result in the behavior called "getting to school on time." The parents and the teacher should recognize exactly what behavior patterns they are reinforcing. Since Skinner's theory is focused completely on product or precisely, designated terminal behavior, he does not discuss the possibility of the individual considering the particular situation and then redefining the behavior in terms of how he views its relevance in his own life. For example, the high

school senior might or might not be a "slave" to the behavior labeled "getting to school on time" or, "getting to school on time" might, in some cases, be defined in terms, by the student, independent of clocks. Possibly the student might choose not to go to school at all. Precise definition of terminal behavior and reinforcing patterns precludes such considerations.

How the sentient individual operates within an existence which allows no personal choices is not quite clear. Skinner says that the individual may struggle to free himself from the ultimate aversive consequences of certain positive reinforcement. Drugs, flattery, and incentive wages are examples of reinforcements which may be seen *temporarily* as positive ones. A powerful technology of education will extend the kind of freedom sought by the individual in this struggle against the control of positive reinforcement by permitting him to behave "under minimal control of practical consequences." (Skinner, 1968:172-173; cf. Evans, 1968:54) Tacitly, Skinner seems to be advocating the education of individuals so they will be able to make choices identical to the "awareness choices" advocated by Rogers. Many of Skinner's *explicit* statements will not, however, allow this interpretation.

John Dewey advocated a learning situation in which the child learned by doing. Carl Rogers emphasizes individual, personal exploration and discovery. Skinner is remarkably similar to these credenda in some of his arguments for individual development. He uses terminology different from that of Dewey or Rogers, but the tone and goal may by proximate. He provides an illustration in which a parent buys his child a new toy. When the toy is brought home, the parent will almost always carefully instruct the child concerning the exact mode of its use. This corresponds to Skinner's general advocacy of precise behavioral patterns. Yet in this case, he explicitly deplores such practice. (Skinner, 1968:179) By such action the parent is not arranging contingencies which would result in individual exploration and personal discovery. Skinner believes the school curriculum is seldom designed to protect or strengthen the contingencies responsible for individual curiosity and exploration. In the practice described in the above example, valuable contingencies which would shape and maintain such behavior as reaching toward and grasping a novel object and exploring its possibilities are destroyed. He believes the child can be directed yet permitted to "think" as an individual. Exactly how such independent thought fits into the deterministic philosophic framework is not discussed. He writes:

> We can teach the student to think for himself without sacrificing the advantages of knowing what others thought. He will not waste time in discovering what is already known, but what is known must be transmitted in a form he is most likely to use—particularly in those unforeseeable environments in which his contribution as an individual will be most conspicuous. (Skinner, 1968:178-179)

If an "environment" (an actual situation in life) is "unforeseeable," then a precise behavior pattern for that situation can neither be designed nor predicted. In such a situation the person's use of knowledge in a unique "contribution" is identical with personally chosen action, as discussed in other psychological theories. Skinner's "personal utility" seems close to Dewey's thought, and "individual contribution" seems close to Rogers' thought. Presumably, theoretical distinctions can be made from Skinner's frame of reference. He does not enlarge upon the individual student's unique contribution. Within the deterministic theory such contribution could directly result from an unconsciously possessed genetic and social heritage. If such assumption is correct, the individual essentially contributes nothing during his own life. Also, the source of his genetic and social heritage raises perplexing problems. Skinner advocates ignoring such embarrassing questions. (Skinner, 1971:12)

The quotation above probably does not accurately reflect the central thrust of Skinner's educational theory. The operant view emphasizes the response and the contingent consequence. In order to teach any subject from the behaviorist viewpoint, a close examination of the terminal behavior is mandatory. Furthermore, if the terminal response is complex, the sequential set of responses must be carefully specified. When this task of specification is completed, the student must be analyzed to determine which stimuli will operate upon him most efficiently as reinforcers. A reinforcer may be a smile, verbal praise, M and M's, or the most generalized reinforcer in our society, money. The educator, as an operant conditioner, can initiate the learning process (defining as response acquisition). The educator arranges the reinforcement schedule; he also chooses and precisely defines the terminal behavior.

The procedural tool which most closely fits this defintion of education is the teaching machine. Factual material is presented, a response is required, and reinforcement follows in the form of blinking lights or some other device to indicate "correct"

answers. The student is, in this way, manipulated along a prescribed path of behavioral responses. In this approach the curriculum is organized on the basis of various capacities, or abilities, rather than in specific subject matter areas, i.e., history, geography or literature.

Such curriculum design should not be confused with the old idea of "developing mental disciplines." Capacities and abilities refer to skills in overt, individual response to prescribed stimuli. The fact that Skinner's curriculum would focus attention on the individual student can be misinterpreted. Specific statements made by Skinner must be used carefully if they are to fit the tenor of the total theory. Skinner says, "I'm much more concerned with the students' so-called personality traits—his interest in what he's doing, his perseverance, his ability to stick with an unpleasant task, his enjoyment of literature—things like that." (Evans, 1968:70-73) Notice the term "so-called."

In the above quotation, Skinner clearly warns that he is using traditional terminology, not the precise terminology that would accurately reflect his theory. Terms like personality traits, interest, perseverance, ability, and enjoyment must be carefully translated if they are to be congruent with his total theory. Each term must be made to fit a behaviorism which omits mentalistic processes. For example, behavior that has traditionally been explained by the use of the terms interest and perseverance are, in Skinner's theory, explained in terms of "not losing the subject." Skinner's students are warned early in their laboratory work to "not lose their pigeon." If the contingencies of reinforcement are planned with enough precision, the subject whose behavior is being manipulated will be led smoothly from one step to the next. His behavior, whether the subject is a pigeon or a student, will correspond to that behavior which has been traditionally attributed to "interest." Continuation of smooth, precise manipulation is descriptive, for Skinner, of the same behavior that has been explained by attributing a personal characteristic of "perseverance" to the behaving individual.

Skinner's focus on the individual and Rogers' focus on the individual can only be contrasted, not compared. The opposing approaches have no fundamental point in common. For Skinner, the activity of the individual must be carefully controlled if the paramount goal, a designed society, is to result. For Rogers, the individual self has an intrinsic value; it should not be utilized by external agents for purposes of social design. Skinner desires absolute control of individual behavior in order to realize a *product*. Rogers deplores control of individual behavior; he would minimize such control in order that the individual could experience a *process*.

Following the above explanation, the reader should be able to distinguish between skinner's notion of the "student's interest" and Rogers' idea of "personal meaning for the student." In the behaviorist scheme "interest" means smooth, efficient, external manipulation of the behavior. In the phenomenological scheme, the initiative of behavior is internal; the individual chooses his mode of behavior using some internal frame of reference labeled meaning. A clear understanding of either theory, if examined from the opposing point of view, may be impossible.

Skinner believes that lack of understanding hinders the acceptance of his approach to education. He argues that power frightens people, and the efficiency of his theory of control represents a great source of power. He thinks that it is within this context that some critics of his theory say teaching machines and programmed learning will mean regimentation. He says that "nothing could be more regimented than education as it now stands." (Skinner, 1968:90) He cites the required syllabuses, entrance requirements, standardized examinations, certificates, diplomas, and honors for specified behavior. He argues that we do not need to worry about these conformity-oriented goals because we know the current methods are so inefficient that the students never learn what the stated goals prescribe. (Skinner, 1968:90-91) He would define *exactly* the desired behavior, then create the educational environment which will result precisely in that behavior.

Concerning regimentation, Skinner realizes that his technology could be "misused." It could make all men alike. It could limit the beneficial effects of accidents on the evolutionary development of both individual and society. Yet if used "wisely," it could maximize the genetic endowment of each individual; it could build the greatest diversity of interests; it could enable each individual to make the maximum possible contribution to the survival and development of the society. Skinner is emphatic: the means of such control is available; the technology will be used in one way or another. He hopes it will be used "wisely." (Skinner, 1968:91)

The behaviorist's basic assumptions about human nature and the possibilities of control require that he accept a certain view, or at least limit his possible perceptions, when viewing other theoretical approaches. In line with this pattern, Skinner

declares that the humanist who uses persuasion, argument, inducement, emulation, or enthusiasm to get a student to learn is controlling the student just as much as the person who uses a machine or "programmed learning." The question is merely one of method. Skinner deplores inefficiency. He thinks traditional formulations of the learning process have been tried for two or three thousand years and have been proved ineffective. His technology of teaching is a new conception focused upon methodology. Skinner explains:

> The whole thing is a question of method. That's the crux of my argument with Carl Rogers; I'd like people to be approximately as Rogers wants them to be. I want independent people, and by that I mean people who don't have to be told when to act or who don't do things just because they've been told they're the right things to do. But how do you build independence? I'm convinced that I can specify methods which will be more effective than Rogers'. I just don't think his conception of inner determiners is valid. We agree on our goals; we each want people to be free of the control exercised by others—free of the education they have had, so that they profit by it but are not bound by it, and so on. This is all part of the educational design which I'm trying to implement, not only with teaching machines but with the application of an experimental analysis to classroom management. It boils down to a question of method, not of the ultimate worth of the individual. I want to preserve the dignity and worth of a man, too. (Evans, 1968:67-68)

This statement must be accepted from Skinner's point of view. This is not to say that Rogers would agree, nor would one working outside either Rogers' or Skinner's theory necessarily agree. Skinner sees the essence of his approach, as well as the crux of his difference with Rogers, as simply methodological procedure. Does he in fact define independence the same as Rogers does? How much of their differences could be centered in fundamental differences in the ways they define the human being? What does Skinner mean, *exactly*, by the last statement of the quotation, considering the title and content of his latest book? (cf. Skinner, 1971) Further discussion of these questions will be found in later sections. Within the present context, we note only that such questions may hinder the educator's efforts to translate psychological theory into educational practice.

A certain amount of frustration may accompany any effort to put theoretical conceptualizations into everyday practice. The problems in attempting to implement Skinner's theory are great. He realizes that educational change will come slowly. Some of his recommendations could be used as adjuncts to other kinds of teaching. He is not entirely satisfied with this measure of improvement. To merely borrow a few of his notions and tack them on to traditional philosophy and procedure is really not an implementation of his theory. Yet, exactly how to proceed when one completely accepts his theory is not even specified by Skinner himself.

Smoothly changing behavior (participation, cooperation, or interest, in traditional terminology) is vital to the theory of operant conditioning. Emphasis must be focused upon the individual behaving organism. Each must be observed and reinforced appropriately; therefore, an educational situation in which the individual student can move ahead at his own rate is desired. Yet Skinner realizes that if every student were actually allowed to do so, the confusion would be intolerable. Skinner confesses that he does not know how to solve such problems, but he feels strongly that they cannot by neglected any longer; they must be solved. He states emphatically, "We simply must not hold back quick students or force slow students to go so fast that they miss important steps and hence go still slower and eventually become hopelessly discouraged." (Evans, 1968:74)

An emotion-laden, mentalistic term like "discouraged" does not fit into Skinner's behavioral theory. In the quotation above he is concerned, quite obviously, with "losing his pigeon." He is arguing for *individual* reinforcement schedules. His advocacy of teaching machines is one of his attempts to solve educational problems. Machines, correctly designed and programmed, do offer the desired reinforcement. Such machines, however, are not essential for operant conditioning to take place. Indeed, their use may not be the most efficient method of practicing behavior modification in many educational situations. Consider the following example.

Hill Walker and his research associates at the University of Oregon have used behavior modification technology in adverse educational circumstances. Their carefully designed and reported experiments were undeniably successful in changing and controlling behavior. (Walker, *et. al.*, 1971; Walker and Buckley, 1972)

In one experiment twelve students from grades four, five and six were selected, all of whom possessed a number of behaviors which inhibited learning.

> Teacher defiance, distractibility, hyperactivity, and tantrum behavior were attributed to the group as a whole. Individual behaviors exhibited were physical and verbal abuse of peers, pre-delinquent behaviors (stealing, smoking, glue-sniffing) rejection of peer interaction, and excessive verbal outbursts (swearing, loud noises, etc.) These behaviors were identified as most annoying to the regular classroom teacher; yet the subjects exhibited many additional behaviors illustrative of inadequate social and academic adjustment. (Walker, *et. al.*, 1971:2-3)

Since the students were academically retarded in math, reading, language, and spelling, instructional attention was focused on these basic skill areas. Materials used included programmed tests, books from the students' regular classrooms, and some teacher prepared material.

Timers and a display board with flashing lights were essential in effecting the reinforcement schedules. Individual timers were placed on each student's desk, and they were used in a variety of ways to meet the specific behavioral requirements of each child. A large timer, placed in the front of the room, was used to record and monitor group behavior. Behavior corresponding to that desired by the experimenters resulted in the accumulation of both individual and group points. Students could exchange their individual points for free time, model cars, airplanes, games, books, paints, baseballs, and footballs. The group could exchange group points for activities of its choice such as slot car racing, pool, bowling, swimming, or museum trips.

Lights and buzzers informed students how their behavior was being evaluated, whether appropriate or inappropriate. Timers were not permitted to run (the method of gaining points) concurrent with inappropriate behavior. Individual misbehavior stopped the group timer as well as the misbehaving individual's timer. In addition to the focus upon individual reinforcement, a group reinforcing climate was created which was particularly potent since it incorporated positive stimuli (trips and other "fun" activity) and aversive consequences (peer disapproval) into the same procedure.

After appropriate behavior became fairly stabilized, reinforcement schedules were modified in a staging technique designed to phase the students back into the regular classroom environment. An essential part of transferring the student from the experimental to the normal environment was the change of focus from the contrived reinforcers (trinkets) to the kinds of social reinforcers which obtain in the typical classroom. Three months after the experiment, six of the students were observed, along with their classmates, in a regular classroom setting. Data from these observations indicate a high persistence of treatment effects.

Comparison of pre-experiment and post-experiment tests revealed impressive academic gains. Walker and his associates believe that the model of behavior modification they followed was very effective in changing both atending behavior and academic proficiency.

> The treatment model was very effective in producing behavior change among the subjects in Experiment I. This group produced appropriate attending behavior an average of 39 percent of the time during baseline and 90 percent of the time during treatment. The mean difference of 51 percent between the two conditions was statistically significant beyond .001. (Walker, *et. al.*, 1972:17)

A second experiment was designed to evaluate reinforcement components of the behavior treatment model. (Walker, *et. al.*, 1971:21-30) Walker and his associates' conclusion was as follows:

> Three components of the treatment model, token reinforcement, social reinforcement, and aversive controls were evaluated in terms of their efficiency or potency in controlling the behavior of a second group of five subjects. The results indicated that social reinforcement exercised the greatest control over the subjects' behavior while aversive controls were slightly less effective in controlling the same behavior. Token reinforcement exercised surprisingly little control over the subjects' attending behavior. (Walker, *et. al.*, 1971:30)

Further experiment by Walker (Walker and Buckley, 1972) show as conclusively as did the first two experiments that a method of control, generally labeled behavior modification, works in some educational situations. Timers and lights are substituted for teaching machines. Students do indeed conform to socially desired behavior. The only major deviation from Skinner's theory that was used in Walker's experiments was that concerning aversive control. Skinner believes such control is ineffective while Walker found it to be very effective. Viewed within an overall evaluation of Skinner's theory, or within the context of implementation feasibility, the one point of difference may be of no major importance.

The experimental detail offered above is included as only one of numerous possible examples which illustrate conclusively that operant conditioning is an effective means of controlling some behavior, of some individuals, in some situations. If those persons who are participating in such a program conform to Skinner's basic assumptions, the efficiency of the behaviorist theory is unassailable. No comparable experimental data has been obtained which indicates that an entire society, however, can be enticed to accept Skinner's assumptions.

Different philosophical assumptions seem to enable their respective adherents to view the current educational scene with extremely divergent conclusions and recommendations. As stated, Skinner believes his educational design would augment the unique individual's opportunities of realizing his own potential maximum, relative to his genetic and environmental circumstances. His thought may be contrasted with a number of rather vocal critics of current educational methods. Paul Goodman (1956; 1962; 1964), Edgar Z. Friedenberg (1959; 1965), and Jules Henry (1963) share a common belief that contemporary society and its educational system limit the individual in the process of learning. They believe the present system is performing *too* efficiently in the socialization process. Critics belonging to this group believe that parents, teachers, guidance counselors, school administrators, and adults in general, seduce and coerce youth into paths of self-denial. The adult world, epitomized in the educational system, forces the child into too much conformity. (cf. Schrag, 1967) Essentially, the question being raised is, "Are we becoming a society of over conformists"? Skinner believes his theory would permit less conformity than is now stated in educational goals; only the inefficiency of current methodology allows the individual great flexibility. Rogers and other humanistically oriented psychologists and educators fear Skinner's proposals. (*Time*, 1971:47-53) They are afraid the technical, mechanistic approach would induce even greater conformity. Skinner argues that his methodology could be used to produce regimentation, but that this is not an inevitable result of his suggestions.

Commenting on this issue, Skinner makes the following statement:

> I think man could be much less conforming than he is. Our school systems could bring people even more under the control of the natural environment and less under the control of "what other people say," what they read, what they memorize by way of rituals which control their daily life. I'm all for that. But that would raise problems on its own; a world in which people were freely and wildly original could be a very difficult world to live in, too. A certain amount of conformity is needed for just the ordinary articulation of a group. I don't feel, personally, that it is particularly valuable to ride the issue of conformity in defining a better world. Nonconformity is not what you want, any more than conformity. You want people who are making the most of themselves, and this usually means people who are least under control of manners, customs, and other people. I seldom think in terms of conformity; I don't think it's a useful concept. (Evans, 1968:74-75)

Again, the reader finds the meaning of Skinner's specific statement by carefully aligning it with the total theory. Skinner says he wishes people to be "less under the control of what other people say" and more under environmental control. His total theory advocates precise design of the environment. Distinction between being controlled by what other people say and being controlled by an environment designed by other people is lacking. Presumably the first refers to action that results from some verbal, philosophical influence, and the latter is direct physical manipulation.

The degree of efficiency may be the only fundamental difference between verbal control and nonverbal control. If Skinner's critics are equating control and regimentation and Skinner is not, his statement, as quoted above, will not allay their fears. Conformity is, in many minds, connected to notions of being coerced into a pattern of behavior. Such coercion is indeed advocated by Skinner throughout his theory. As he applies his theory to education, Skinner sees the teacher as the controller whose primary duty is to manipulate the students along prescribed behavioral patterns.

The preparation of teachers is of paramount concern to Skinner. He notes the pedagogy is not a prestigious study. Skinner thinks educational psychologists have spent the last fifty years measuring the results of teaching without adequately analyzing teaching itself. Pedagogy has not been a true technology of teaching. College teaching has hardly been taught at all, while elementary and high school teaching has been primarily by a kind of apprenticeship. Possibly some skills are handed along, but the major source of teacher education seems to be the young teacher's own experience. Some even argue that a good teacher is simply one who knows his

subject very well. Skinner does not agree. He believes a science of teaching is necessary. Teachers need the kind of help offered by his scientific analysis of behavior. (Skinner, 1968:93-95) The process of education is far too important, and too complex, to be left to casual experience. He believes the teacher should be a specialist in human behavior whose occupation is to bring about complex changes in complex material. His scientific analysis helps the teacher in two ways: it offers standard materials and methods, and it supplies the understanding of human behavior which is essential in creating solutions to new problems. (Skinner, 1968:255-256)

In his "experimental study" of learning Skinner has found that the contingencies of reinforcement which are most efficient in controlling the student cannot be arranged directly through personal mediation of the teacher. Mechanical and electrical devices should be used. As a reinforcing mechanism the teacher is extremely inefficient when compared with mechanical devices such as teaching machines (Skinner, 1968:21-22) Skinner's definition of teaching must be kept in mind. He says, "That's all teaching is, arranging contingencies which bring about changes in behavior." (Evans, 1968:59; cf. Green, 1964) For Skinner, one of the tragedies of current education is that the teacher does not have too many reinforcers at his disposal. Prizes, tokens, pats on the back, approval, and attention are the kinds of reinforcers which are sometimes used by teachers. (Evans, 1968:61-62) Such reinforcing techniques must be improved.

All of Skinner's proposals emphasize *efficiency*. Within his view of educational needs the use of teaching machines is essential to attain maximum efficiency. Population is not only increasing, but a greater percentage of that larger population desires an education. Educators must avail themselves of more advanced techniques and equipment if the schools are to meet the demands of the society. Demands in most areas of the society lead to invention and rapid acceptance of labor-saving equipment and methods. According to Skinner, education seems relatively slow to make the same kinds of adjustments because of misconceptions of the educational task.

For a number of years, of course, audio-visual aids have been used in a supplementary role. Eventually, they may take the place of lectures, demonstrations, and textbooks. Use of audio-visual aids represents, however, only one function of the teacher. This function is to present material to the student so clearly and so interestingly that the student learns. According to Skinner another function must be facilitated, a function which engages the student on an individual basis. He desires the kind of interchange which is often possible if the teacher-student ratio is one to one. He refers to the tutorial method.

Productive educational interchange, according to Skinner, becomes possible in the tutorial situation. Population pressures have greatly limited this aspect of education, and if educational hardware is used increasingly merely to present information, the tutorial teacher-pupil relationship may be destroyed altogether. Skinner sees this process causing the student to become more and more a mere passive receiver of instruction. He denounces this trend and states his desire to see teaching machines designed and used which encourage the student to take an active role in the educational process. Machines which present material, test, score, and reinforce correct behavior immediately not only engage the student in the desired manner but also permit each individual to progress at his own speed. (Skinner, 1968:29-30)

Such a teaching machine brings the student into contact with the person who composed the material which it presents. One programmer (theoretically a top expert in his field) is in contact with an infinite number of students. Although some educators view this process as a form of mass production, Skinner believes the effect upon each student is surprisingly like that of a private tutor. He feels this comparison holds in the following respects:

> (1) There is a constant interchange between program and student. Unlike lectures, textbooks, and the usual audio-visual aids, the machine induces sustained activity. The student is always alert and busy. (2) Like a good tutor, the machine insists that a given point by thoroughly understood, either frame by frame or set by set, before the student moves on. Lectures, textbooks, and their mechanical equivalents, on the other hand, proceed without making sure that the student understands and easily leaves him behind. (3) Like a good tutor the machine presents just that material for which the student is ready. It asks him to take only that step which he is at the moment best equipped and most likely to take. (4) Like a skillful tutor the machine helps the student come up with the right answer. It does this in part through the orderly construction of the program and in part with such techniques as hinting, prompting, and suggest-

> ing, derived from an analysis of verbal behavior. (5) Lastly, of course, the machine, like the private tutor, reinforces the student for every correct response, using this immediate feedback not only to shape his behavior most efficiently but to maintain it in strength in a manner which the layman would describe as "holding the student's interest." (Skinner, 1968:37-39)

The task of programming the material for this method of education is indeed formidable. In a textbook a confusing passage is not critical; hopefully, it can and will be clarified by the teacher. In contrast, the machine material must be self-contained and wholly adequate. Skinner recommends these steps be followed in the construction of a program. (Skinner, 1968:48-49)

(1) Define the field.
(2) Collect technical terms, facts, laws, principles, and cases.
(3) Arrange these in developmental order—linear if possible, branching if necessary.
(4) Distribute the material among the frames of a program to achieve an arbitrary density.
(5) Choose techniques for strengthening responses and transferring control from one variable to another, according to a given schedule.
(6) Mechanically seed previously learned terms and facts among succeeding material to keep it active.

Skinner's educational plan would assign tasks that can be mechanized to machines and thus permit the teacher to assume "his proper role as an indispensable human being." (Skinner, 1968:55) One teacher could accommodate more students in fewer hours with less routine chores. Possibly his greater efficiency, Skinner suggests, would be rewarded by increasing financial remuneration for his services.

Instituting the program would result in various changes in educational practice. For example, grouping students in grade levels would not be necessary since each student could move at his own rate. Grades would change in meaning. Traditionally, a "C" might mean the student had acquired a smattering of the course. If machines instruction assures mastery at every stage, a measurement could only indicate how far the student has gone, not how well he knows the material.

Students who are able to proceed rapidly could not only move vertically to more difficult material, but they could also enrich and broaden their educational experience by choosing additional programs in lateral movement. Sutdents who miss school for any reason could pick up exactly where they were with no problems. Home study could be facilitated. When teachers are unavailable, students could be taught with adequately programmed machines.

The constant theme in Skinner's theory of education is the need to carefully define the exact behavior we desire, search for the environmental conditions which reinforce that behavior, and then design the most effective contingencies of reinforcement. He says to impart knowledge is simply "to bring behavior of given topography under the control of given variables." (Skinner, 1968:203; cf. 1968:184)

He concludes his book on education with a chapter in which he emphasizes the dire necessity of implementing his "technology of teaching" if society is to survive. Power, control, and his brand of education are inseparably mixed within his theoretical formulations:

> Absolute power in education is not a serious issue today because it seems out of reach. However, a technology of teaching will need to be much more powerful if the race with catastrophe is to be won, and it may then, like any powerful technology, need to be contained. An appropriate counter-control will not be generated as a revolt against coercive measures but by a policy designed to maximize the contributions which education will make to the strength of the culture. The issue is important because the government of the future will probably operate mainly through educational techniques. (Skinner, 1968:260)

## ROGERS ON EDUCATION

Almost twenty years have passed since Carl Rogers was invited to a Harvard conference on "Classroon Approaches to Influencing Behavior"; there, he presented his views, little expecting "the tumult which followed. Feelings ran high." (Rogers, 1961:273-275) The essence of Rogers' approach has changed little during the intervening years.

Rogers had been requested to put on a demonstration of "student-centered teaching." He felt that a two-hour session with such a sophisticated

group, trying to help them formulate their own purposes, and responding to their feelings as they struggled in the experience might be an extremely "artificial" experience. Yet this had been, and still is, the essence of his educational approach. He simply did not know what he would do, or what he would present. (Rogers, 1961:273) At this time he went to Mexico for a winter quarter vacation. He did some painting, writing, and photography. (The Rogerian teacher focuses upon his own life and experience). He spent much time on this trip "reading and digesting" the writings of Soren Kierkegaard. (Rogers, 1969:151) As the Harvard conference date approached, he was confronted with the obligation he had accepted.

In the past he had occasionally started class discussions by stating some very personal opinion of his own, then spending the rest of the session trying to understand and accept the various reactions and feelings of the students. Such sessions sometimes resulted in deep "meaningful" experiences for the participants. A similar session seemed to be one possible way of handling the Harvard assignment. Accordingly, he sat down and wrote the feelings he had at the moment about teaching and learning. The result was only three brief pages. He explains, "I simply put down what I felt, with assurance that if I had not got it correctly, the discussion would help to set me on the right track." (Rogers, 1961:274)

At the conference, Rogers used a few moments to present his views, almost immediately opening the meeting for discussion. He had not realized the inflamatory nature of the brief paper. The meeting exploded with spontaneous, individual reactions to the presentation. Some felt Rogers was threatening their jobs; some felt he was saying things he did not really mean. Rogers refused to defend himself from the numerous attacks. He tried to accept and empathize with the frustration being felt by the educators. He tried to point out that he had only stated some personal views. He had neither asked nor expected others to agree. During the storm of discussion, members of the group expressed a variety of significant feelings about teaching. "It was a very thought-provoking session." (Rogers, 1961:274)

During the day of Rogers' presentation, possibly few of the conference members remembered that this meeting had been billed as a demonstration of student-centered teaching. Some, looking back, may have realized that they had indeed lived an experience of the student-centered educational approach. The morning after the conference, as Rogers was preparing to leave, one of the participants remarked, "You kept more people awake last night!" Rogers concluded the experience had been a successful one. Keeping people awake is not his goal, but helping them to examine their own experience and ideas is. (Rogers, 1961:273-278; cf. 1969:151-155)

Consider certain factors in the description of this experience. Rogers recognizes the dangers of artificiality in attempts to create educational "situations." He sees the "good" teacher changing constantly, "learning" with the students, and apart from them (both teacher and students being in "process"). He sees the educational experience as "meaningful" to both teacher and students; that is, the particular educational experience is significant to the total personal experience of each person. Rogers did not try to "teach" the conference members anything. He did not have a precise goal. A belief, or a set of facts, as an educational terminus was not Rogers' plan. He did not feel "threatened" as others expressed divergent views. He did not try to mold thought patterns. In no way did he accept responsibility for what the other members chose to believe. He tried to be himself as honestly as possible, while holding the identical possibility for each of the other conference participants. The experience was personally oriented, and it contained many personal interactions between individuals. This, for Rogers, is education.

Several years after its presentation at the Harvard conference, the brief paper was published. (Rogers, 1957b) It has been included in two of Rogers' books. (Rogers, 1961; 1969) In spite of its brevity, this paper contains both his fundamental tenets and the possible implications of his educational theory. His opening statement is profoundly revealing of his entire theoretical attitude. Here it is: "I wish to present some very brief remarks in the hope that if they bring forth any reaction from you, I may get some new light on my own ideas." (Rogers, 1961:275) He does not pretend to impart knowledge; rather, his desire is to share experience and to compare ideas. He finds it troubling to "think" about his experiences and then try to present them logically to others because so often these experiences only have meaning for him alone; they may seem absurd to others. Yet he is willing to share some of his own personal "meanings," holding them, even for himself, on a very tentative basis. He does not argue that these tenets are logically presented, only that they are important and meaningful, as presented, to Rogers himself. (Rogers, 1961:275)

In the process of interweaving Rogers' psychological theory with his educational suggestions, one remembers that the phenomenological view holds

changing of perceptions, or learning, as a function of the needs of the learner. External manipulation of the environment might modify behavior: it might not. Such external manipulation of the environment does not, from the individual's view, "cause" his response. In the learner's mind, his acts are chosen as the best way to satisfy his immediate need. According to Rogers' theory, underlying all conscious and immediate needs is the maintenance and enhancement of self. In Rogers' view it is important to realize that although a student may appear to the teacher to be "learning" to improve his performance on a school lesson, he may really be maintaining a stable self-image by appearing to be interested and thus keeping himself out of trouble. Any observable evidence of the "learning" may disappear quickly and completely as soon as the student feels freed from teacher manipulation. The analysis of learning must always include an appraisal from the student's point of view.

A key notion is that the individual's perception of the behaviors which lead to self-actualization is the basis for his action. A distorted perception, therefore, may lead the individual toward destruction rather than to valid self-actualization. An implied tenet is that man tries to be "good." This position contrasts with Freud's concepts of the licentious id and the tyrannical superego: the position also clearly contrasts with Skinner's belief in the need for certain kinds of control. Rogers believes if man can perceive clearly, or be given the opportunity to modify distorted perceptions, his goal-directed activity will lead to greater, positive self-actualization. Within this context, the educator should not provide conclusions: he should provide only the opportunity for reducing distorted perception. Given the opportunity, the individual will select goals which are self-actualizing. Further, the individual himself is in the best position to determine which goals and methods meet this criterion.

For Rogers, teaching is the facilitation of perceptual differentiation, or changes in meaning. Teaching is not a direct act. One cannot hand a perception to another person or cause a perception to occur. In Rogers' view the problem of teaching is not "How do I present the subject matter?" but rather, "How can I help students perceive personal meaning in the subject matter?" That is, how can the teacher help the students relate the subject directly to their lives? For Rogers, learning is a function of need; need is what the individual perceives as maintaining and enhancing to his self. Therefore, those elements of "education" that are not perceived as self-related are of little or no significance—probably not "learned" at all within Rogers' definition of learning.

The following statements summarize some of the fundamental ideas of his educational theory: (cf. Rogers, 1961:276-277)

(1) One person cannot teach another person how to teach.
(2) Anything that can be "taught" to another is inconsequential.
(3) The only learning that significantly influences behavior is that which is self-discovered and self-appropriated.
(4) Such self-discovered "truth" cannot be directly communicated to another.
(5) With effort, one may, on occasion, succeed in "teaching" another something, but if this happens it is damaging, not helpful. The person who has been "taught" begins to distrust his own experience. If one's own experience is not trusted, "significant" learning is stifled.

As a result of his experiences in therapeutic situations, Rogers has lost interest in "being a teacher." As he puts it, "I realize that I am only interested in being a learner, preferably learning things that matter, that have some significant influence on my own behavior." (Rogers, 1961:276) He feels that one of the best ways to learn is to drop one's defensiveness and try to understand the other person's point of view. Such practice opens up alternative perceptions. Education is the process that facilitates personal "understanding." "Teaching," which emphasizes almost exclusively the teacher's contribution to the learning process, is rejected by Rogers. The central theme of facilitation is found in the teacher being an effective, fully functioning person who is capable of aiding the learner in sharpening his own perceptions.

Throughout a study of Rogers' theory, especially as one focuses upon the teacher's role, one must take care to avoid an easily made misinterpretation. Rogers is not concerned with a licentious experience in which the learner responds to superficial psychological stimulation. Letting the student "do his own thing," if that is an unexamined commitment, is not the teacher's role. Helping the learner in a personal-social definition of problems with personally relevant resolutions is the primary concern of the instructor. Examples of teaching that are commended by Rogers support this point. (Rogers, 1961:297-314; 1969: 11-57)

If the teacher is aware of his own experiencing process, and if he accepts his own uncertainties, then

the meaning of personal experience may be clarified for both teacher and student. The Rogerian educator believes both teacher and student (as persons) behave, or learn, in terms of what is real to the individual, what is related to the self at the moment of action. What is actually "out there" (something termed "reality," "factual knowledge," or "empirically substantiated material") is not of central importance. Rather, it is the students' interpretation of reality and its perceived effect on his own self-system that motivates all of his learning and action.

Although the student's needs are all self-related, the self-concept is linked inseparably to personal precepts of the physical and social world in which the individual lives. Maintenance of motivation, always a paramount problem of any prescriptive approach to education, is no problem in the Rogerian view. Self-motivation is intrinsic in the process. Rogers views motivation as a transactive process in which interpretations of the environment define problems to which the student chooses to respond. These interpretations and definitions, in turn, alter the student's perceptions of both self and environment. The student is always motivated by being involved in the process of definitions, solutions, redefintions, and resolutions of self in relation to the perceived environment.

Rogers sees the learning-living experience as a process which, under optimum conditions, will carry itself forward toward goals which are dimly defined, if designated at all; the individual's effort is focused upon understanding the current meaning of that process. This process is characterized by an ever changing complexity. The individual within this kind of educational process can be fascinated because personal relevance and participation are guaranteed. He can also become frightened since he is risking his self. Not only are the parameters of the experience without careful definition; the method, or process, of getting wherever it is that one is going also lacks specific delineation. (cf. Rogers, 1961:276-277) If the individual has been socialized to select goals and plan carefully to reach them, he may experience difficulty in accepting Rogers' formulations.

Rogers thinks learning can be divided into two general types. These types represent the extreme ends of a continuum of meaning. At one end is the kind of task which has no meaning for the individual. He could be forced to memorize nonsense syllables or the presidents of the United States. Whatever the subject, nonsense learning is characterized by these important factors: first, no personal meaning is involved and second, the subject is difficult to learn and easy to forget. Rogers believes that large portions of the present curriculum are of this nature. The second type of learning, at the other extreme of a meaning continuum, is described as significant, meaningful, and centered in personal experience. In the moment-by-moment experiencing of his life the individual discovers "things" (not objects, or facts, but units of meaning) in a way which involves both his thoughts and his feelings. This kind of learning progresses from a natural curiosity, not from drudgery; such learning is relatively easily retained because of the close personal connections to the experience of the individual involved. (Rogers, 1969:3-4)

This second type Rogers labels "significant learning." He writes:

> By significant learning I mean learning which is more than an accumulation of facts. It is learning which makes a difference—in the individual's behavior, in the course of action he chooses in the future, in his attitudes and in his personality. (Rogers, 1961:280)

The kinds of changes Rogers believes result from this kind of learning are:

(1) The person comes to see himself differently.
(2) He accepts himself and his feelings more fully.
(3) He becomes more self-confident and self-directing.
(4) He becomes more the person he would like to be.
(5) He becomes more flexible, less rigid, in his perceptions.
(6) He adopts more realistic goals for himself.
(7) He behaves in a more mature fashion.
(8) He changes his maladjustive behaviors, even such a long-established one as chronic alcoholism.
(9) He becomes more acceptant of others.
(10) He becomes more open to the evidence, both to what is going on outside of himself, and to what is going on inside of himself.
(11) He changes in his basic personality characteristics, in constructive ways. (Rogers, 1961:280-281)

These points are taken directly from, and are completely consistent with, Rogers' psychological

theory of behavior as formulated from his experience in psychotherapy. He is describing a pervasive learning which is not just an accretion of knowledge, but it is a learning which interpenetrates every portion of the individual's existence. (Rogers, 1961:279-296, esp. 280)

Rogers' educational focus does not stand alone. The thinking of some other educational theorists seems in close proximity. Jerome Bruner (1961) proposes that learning by discovery brings about a condition in which the solution to the problem (rather than teacher approval or approval of other social agents) is rewarding. Traditional procedures of listen, recite, and reinforce with a grade are exchanged for a climate allowing the individual student to hypothesize, question, search, discover, verify, and master. Learning by discovery should, theoretically, result in intrinsic motivation. An assumption underlying this position is that a large part of human behavior is controlled by a desire for competence. Anyone who has ever been exposed to children has heard them say, "I want to do it myself." Every child, every developing person in fact, once he believes himself capable of attempting something, wants to try it without help. The individual takes pleasure in whatever he does successfully: he increases his feeling of confidence because he has proven his competence to himself. Such experience reinforces for the person a sense of his own worth. Discovery learning assumes that an individual, if given the opportunity, will exploit his tendencies to learn more about himself and his environment.

An element of optimism pervades Rogers' psychological theory of behavior and carries over consistently into his educational formulations. He implies a positive regard for the student's growth potential and his possibilities of self-direction. The theory, focusing upon self-discovered and self-appropriated learning as the only significant influence upon behavior, envisions an educational setting which is to be contrasted sharply with many current classroom environments. Traditionally, the school day has been broken into five to eight segments with a particular subject assigned to each segment. Within each segment the teacher might have prepared a number of readings and assigned problems which are, for one reason or another, significant for the teacher—not necessarily significant for the students.

From Rogers' frame of reference, what is wrong with this arrangement? First, the procedure lumps all students together. That all students are ready to work on the same thing at the same time, can finish in the same length of time, and can find personal significance in the same experience, are the assumptions. Second, readings, problems, and experiences designed by one person (the teacher) are not necessarily "real" for the student: indeed, they usually are not real, according to Rogers. Third, the responsibility for planning resides in the teacher's hands and little opportunity for student planning is allowed. The implication goes beyond the suggestion of meaningless content: the procedure itself stifles the individual student's growth toward unique potentials.

Rogers, like Skinner, realizes how formidable is the task of implementing his own educational theory. To follow his suggestions, in the strictest sense, would result in shocking consequences. Rogers seems to be feeling the impact of this fact when he writes, "It is when I realize the *implications* that I shudder a bit at the distance I have come from the common sense world that everyone knows is right." (Rogers, 1961:277) These are the consequences which Rogers himself believes his theory implies:

> (1) Such experience would imply that we do away with teaching. People would get together if they wished to learn.
> (2) We would do away with examinations. They measure only the inconsequential type of learning.
> (3) The implication would be that we would do away with grades and credits for the same reason.
> (4) We would do away with degrees as a measure of competence partly for the same reason. Another reason is that a degree marks an end or a conclusion of something, and a learner is only interested in the continuing porcess of learning.
> (5) It would imply doing away with the exposition of conclusions, for we realize that no one learns significantly from conclusions. (Rogers, 1961:277-278)

The most explicit criteria for determining the effectiveness of teaching, in Rogers' view, would not be how active the teacher is, nor how "active" the student is, nor what particular technique the teacher is using. Both teacher and student are "learners." Rogers' evaluation of the educational situation would be based on the amount of personal involvement that is being experienced by the learners. Rogerian "involvement" must be carefully distinguished from "active" in the Skinnerian sense.

Within each theory, the behaving individual

possesses a central importance. Yet, equation of the two approaches on the basis that both stress individual behavior is characteristic of critically inaccurate interpretation of one or both theories. Skinnner wishes the individual to be steadily active, participating smoothly, within a carefully designed, manipulatory syndrome. Rogers' desire for individual involvement, on the other hand, concerns internally initiated behavior that is chosen in relation to an internal frame of reference he has labeled the self. The opposing assumptions each psychologist makes concerning the individual and the individual's potential for behaving in certain ways, forms the basis for an irreconcilable antagonism.

Such antagonism is the salient characteristic of the relationship between the two theories. An analysis of the relationship reveals numerous points of unrelenting conflict. In the preceding paragraph the role of the individual participation, as seen by the two views, was discussed in terms of involvement and activity. Another example of deep and uncompromising opposition centers in the divergent views of individual responsibility. For Skinner responsibility is a term denoting physical reaction to stimuli; for Rogers it denotes an awareness of ability to act in alternative modes. Contrast, also, the two attitudes toward the word "meaning." Rogers' entire theory focuses upon meaning. It is discovered by the individual (or individuals, in a Buber I-Thou sense) in the particular situation. All behavior is contingent upon the meaning for the behaving individual. To the contrary, Skinner thinks an analysis of behavior which does not use "mental concepts such as meaning is a step in the right direction." (Evans, 1968:15)

Individual involvement, individual responsibility, and individual meaning possibly are some of the most obvious examples of terms which reveal the relationship between these two psychological adversaries. The basis of the difference in perspectives is formed by their initial assumptions concerning the nature of man, and the essential antagonism is carried forward step by step as each develops his theory of behavior. Culmination of the conflict which has been developing for more than twenty years can be seen as each man ends his career with a focus upon education.

As always, Skinner and Rogers are in direct opposition to each other. In the preceding chapter Skinner's approach was discussed. His "technology of teaching" should be used to prescribe the way teachers and students behave; precisely what is to be learned would also be prescribed. All is determined. Rogers, on the other hand, expects each teacher and student to choose modes of behavior which contribute the greatest personal "meaning." The process of such behavior is what is to be learned. Educational suggestions made by Rogers are consistent with his theory of behavior, as further analysis reveals.

Theoretically, individual teachers and students are not expected to be copies of Rogers himself. He writes, "Every effective educator has his own style of facilitiating the learning of his students." (Rogers, 1969:57) He seems to advocate the modification of his theoretical suggestions, especially in the examples of student-centered teaching which he offers. The following examples illustrate Rogers' approach within the context of variety: various types of teachers, various experience levels, and various types of desired learning experience.

The first illustrative case comes from an elementary school. Barbara Shiel was a sixth grade teacher who experimented with the student centered approach. (Rogers, 1969:11-27). A successful teacher with thirteen years of experience, Miss Shiel encountered a "problem group" with whom she felt a new approach was needed. While working within the structure of the curriculum and the specified units of study, she found that most students could assume much responsibility for planning their own work and carrying out their plans. While some students could not handles the new freedom at first and needed to revert to a teacher-directed group, all but four were ultimately able to participate in the self-directed program. Through the school year the teacher constantly changed procedures, giving her pupils freedom only so far as she felt comfortable in doing so; in the truest sense of the word, the class was involved in an "experiment." According to the account given, parents, students, and the teacher concluded that the self-directed approach was successful.

A second example came from a college. Volney Faw, of Lewis and Clark College, has experimented with his own modification of the student-centered approach in his psychology class. Professor Faw's classes have much more structure than do some of the other examples. Rogers comments on the great range of freedom possible within his theory. He feels A. S. Neill, in his Summerhill School, would represent one extreme and Professor Faw the other extreme.

As one instructor teaching a required course in introductory psychology with a prescribed textbook and curriculum and the same examinations for all sections. Professor Faw is still able to give his students a number of choices of ways to approach the course content and make it meaningful to them in

terms of their own needs and goals. Among the suggested options are: review of journal articles and presentation in writing, individual experiments, group projects, demonstrations, library-type study, field trips, programmed learning, etc. No one activity is required, but it is made clear to the student that he must participate actively if he is to learn. Evaluation for the necessary grades is in terms of the quality and quantity of work produced. Faw actually uses some concepts from Skinner's theory.

The example Rogers gives of his own teaching comes from the graduate level. (Rogers, 1969:57-97) He declares, "I am sure I would have followed the same principles, and many of the same procedures, whether it had been an elementary, high school, or college course, though I might not have been able to follow such an unorthodox schedule." (Rogers, 1969:57) At the first meeting Rogers suggested possible topics and readings but left both completely open for individual additions. The class met for "long hours" on several weekends. The requirements were as follows: (Rogers, 1969:61-62)

1. A list of reading done by each student. The student should indicate how each item was read, i.e., "skimmed," "read carefully three times," etc.
2. A paper of any length about the student's most significant personal values and the ways they were changed or not changed by the course.
3. A statement of self-evaluation including criteria of evaluation, description of ways in which criteria were met or not met, and the grade the student feels appropriate.
4. Personal evaluation of the course in a sealed envelope with student's name on outside.

These four requirements were mandatory for receiving a grade in the course. Rogers' description of this course centers primarily upon reactions of various students. The overall impression is almost identical with that obtained from reading accounts of his encounter groups. (Rogers, 1970) He concludes, "It had been a course which seemed to me and to the students to have been very successful." (Rogers, 1969:57)

The following illustration of Rogers' approach is included because it comes from a mature scholar, a philosopher of education, Samuel Tenenbaum. Tenenbaum was in one of Rogers' classes offered at Brandies University. He wrote an article describing this experience entitled, "Carl R. Rogers and Non-Directive Teaching." (Rogers, 1961:299-310) Tenenbaum was so impressed that he experimented with the theory and then wrote a second article entitled, "A Personal Teaching Experience." (Rogers, 1961:310-313)

The frustrations, excitement, failures, and successes are described by Tenenbaum. With "no direction" from Rogers, a band of individuals, each going spontaneously in his own way, evolved into a cohesive, efficient, study group, alive with deep personal involvement and commitment. Tenenbaum testifies concerning this experience as follows:

> As you may know, Rogers believes that if a person is accepted, fully accepted, and in this acceptance there is no judgment, only compassion and sympathy, the individual is able to come to grips with himself, to develop the courage to give up his defenses and face his true self. I saw this process work. (Rogers, 1961:305)

According to Tenenbaum's account, most of the students were enthusiastic before the end of the course. Three or four of the group found the entire experience distasteful. These few dissatisfied students were ones who wanted to be presented with a set of facts which they could memorize and give back on an examination. For the student who defines his educational experience within this "factual" framework, Rogers' approach will undoubtedly result in a completely unsatisfactory experience. The student who demands "answers" from the instructor, rather than look for them inside his own world of meaning, will experience little but frustration within the Rogerian approach. The entire process is geared to a *lack of closure*. Tenenbaum elaborates:

> As Rogers himself points out, there is no finality in the process. He himself never summarizes (against every conventional law of teaching). The issues are left unresolved; the problems raised in class are always in a state of flux, ongoing. In their need to know, to come to some agreement, the students gather together, wanting understanding, seeking closure. A grade means an end; but Rogers does not give the grade; it is the student who suggests the grade; and since he does so, even this sign of completion is left unresolved, without an end, unclosed. Also, since the course is unstructured, each has staked his person in the course; he has spoken, not with the textbook as the gauge, but with his person, and thus as a self he has communicated with others, and because

> of this, in contradistinction to the impersonal subject matter that comprises the normal course, there develops this closeness and warmth. (Rogers, 1961:308)

At the time he penned the above description, Tenenbaum was writing and thinking from the students' point of view. a number of months later he composed the ecstatic reaction, mentioned earlier, to this type of educational experience, from the teacher's point of view. (Rogers, 1961:310-313)

The strongest previous educational influence on Tenenbaum had been that of Kilpatrick and Dewey. Most educators would not classify the thought of these two men as tending toward the narrow or provincial. Tenenbaum thought that he had always welcomed the widest possible discussion in his classes. Yet, teaching had become more and more difficult for him. He had come to feel that his classes were listless, that he was simply standing in front of a group "yammering." (Rogers, 1961:310) He had not taught for ten years prior to his experience in Rogers' class. After that experience he realized that although he had "encouraged" discussion, he always wanted it to come out according to his own way of thinking. None of the "discussions" in his class had been real discussions. All his questions had been "loaded." After his experience with Rogers he was not only more aware of what he was doing, but he tried to relinquish control. He was not completely successful in this effort. He still expressed his opinions and lectured to the students occasionally. He did, however, succeed to an extent that was extremely rewarding to both himself and the students. His personal conclusion follows, as communicated in a letter to Carl Rogers:

> I cannot say I followed you all the way, Dr. Rogers, since I would express opinions and at times, unfortunately, lecture; and that I believe is bad, since students, once authoritative opinions are expressed, tend not to think, but try to guess what is in the instructor's head and provide him with what he might like, so as to find favor in his eyes. If I had it to do over again, I would have less of that. But I did try and I believe I succeeded in large measure to give to each student a sense of dignity, respect and acceptance; farthest from my mind was to check on them or evaluate and mark them. . . . That the foregoing was not "biased perception" was evidenced from reports I got outside the classroom. The students had said such nice things about me that faculty members wanted to sit in the class. Best of all, the students at the end of the course wrote Dean Benjamin Fine a letter in which they said the nicest things about me. And the Dean in turn wrote me to that effect. To say I am overwhelmed by what happened only faintly reflects my feelings. (Rogers, 1961:312-313)

The foregoing illustrations each contain various aspects of Rogers' thought: in a way they corroborate elements of Rogers' educational theory offered, explicitly and implicitly, earlier in the present section. A summary of this theory may be worded as follows.

Rogers sees education in terms of individual exploration and discovery, individual understanding, individually significant meaning. Though both Skinner and Rogers focus upon the individual, the essence of their definitions and the resulting implications for education are completely different. Rogers' theory upholds the individual's ability to select his own behavior. The learner initiates the process, is self-reliant, and evaluates himself and the process. Only he, the learner, can know if his needs are being met, if the process has helped him toward his own goals. The prime element of this process, according to Rogers, is its personal meaning to the individual. (Rogers, 1969:5)

In Rogers' view, the factor which makes education effective (successful) is not the technique of manipulation, as advocated by Skinner, but trust. (Rogers, 1969:75) The teacher cannot fake a feeling of trust. If teacher and student are each true to personal feelings, each increases his ability to trust himself and the other. As trust grows, each becomes increasingly free to modify his own knowledge boundaries, to explore, discover, "learn," and to change toward what he wants to be. Both teacher and student are freed from feeling compelled to keep up a facade, or a pretense of fitting certain prescribed patterns.

Rogers feels "teaching" is a vastly overrated function. He has no desire to "make" anyone know anything. He is not sure that anyone knows exactly what should be taught. He feels the imposition of a static way of knowing might make some sense in a static, primitive society, but it makes no sense in our modern, constantly changing society. (Rogers, 1969:103) He believes the goal of education in our rapidly changing society should be the facilitation of change—helping the individual learn how to change. One recognizes this position to be in opposition to that of Skinner, the intrinsic nature of the latter necessarily locking the organism into a pattern. The

nucleus of Rogers' approach is contained in his following statement:

> The only man who is educated is the man who has learned how to learn; the man who has realized that no knowledge is secure, that only the process of *seeking* knowledge gives a basis for security. Changingness, a reliance on *process* rather than static knowledge, is the only thing that makes sense as a goal for education in the modern world. (Rogers, 1969:104)

Two characteristics are essential for the one who would facilitate learning. He must be genuine, honest, congruent; he must be himself. Second, he must be willing to risk, both his self and the process involved in the actual situation. Both of these characteristics are necessary if manipulation is to be avoided, and if a trust relationship is to be established. If the facilitator is congruent and willing to risk, methods and patterns are eliminated. (Rogers, 1969:129-144) The facilitator who has established a trust relationship is the catalyst who makes learning possible. (Rogers, 1969:151-166)

The criterion of significance in assessing educational procedures is the size of the contribution that the curriculum, in any of its forms, makes to the cause of individual fulfillment. A culture necessarily transmits, and man necessarily adapts as socialization is experienced; yet, both processes remain rather pedestrian and insignificant, in Rogers' view, unless they contribute directly and substantially to the ultimate of total personality development, as evaluated by the perceptual stance of the involved ndividual.

## SKINNER'S THEORY IN SOCIAL CONTEXT

The writer's effort to anticipate the results if Skinner's theory were applied to education in a large society, for example that of the United States, is, necessarily and almost completely speculatory. No evidence is available which would indicate what a total culture based upon Skinner's assumptions would actually be like. Historians do not tell of any nation, and anthropologists do not describe any culture, to which one could attribute Skinner's guidelines. If an attempt were made to translate the theory into social practice, what kinds of conditions and issues might ensue? Two illustrations will be used. One contains descriptions of control from Skinner's own imagination. The other focuses upon an actual society, the description of which closely parallels much of Skinner's thought, especially in the kind and degree of control being experienced by the individual.

Skinner has provided some speculative material in the novel, *Walden Two* (Skinner, 1948). The story is, essentially, a description of a small utopian community that has been created according to Skinner's theoretical principles. Throughout the book, Skinner presents his arguments and explicates his ideas through the speeches of his alter ego, Frazier (the community's founder and leader). The story progresses as a college professor, Burris, and a few other observers are conducted on a tour of the community. Events covering each day of the tour are selected so that Frazier can explain to Burris the principles upon which the community was founded (Skinner's theory of behavior). Furthermore, the mode of life engendered by such principles is revealed through glimpses offered Burris as he observes the people who live in Walden Two.

Because the present study is primarily concerned with the ways in which psychological theories apply to education, the discussion will be limited to a few illustrations taken from chapters twelve through sixteen of *Walden Two*. In these chapters, Skinner reveals educational aspects of the community. The reader, along with Burris, is permitted to catch brief scenes that are, presumably, typical of life from birth to parenthood.

One day Burris is conducted through the communal nursery in which all the babies live. (Skinner, 1948:96-99) Their environment and care closely resembles that of Deborah Skinner, B. F. Skinner's own daughter. (Skinner, 1945:30) Aircribs are used; they control temperature and humidity. They also facilitate sanitation. Parents come around every day or so, for at least a few minutes, to play with their baby. From birth the infants are conditioned to behave in ways prescribed by Frazier and his assistants. For example, "annoyances" are slowly introduced "much like inoculations" as the babies are conditioned to tolerate greater and greater amounts of adverse conditions. So complete is this conditioning that many of the conceptualizations with which we traditionally explain, understand, and describe our emotional reactions are never used in

Walden Two. To illustrate the thoroughness of such conditioning Skinner describes the following incident.

One day an observer was talking to a young lady who was in charge of a group of children. Apparently some of the children were going on a picnic; they were excitedly preparing for the outing. The remainder of the children were working contentedly at their usual activities. (Skinner, 1948:100-103) No reason was apparent for some children to go and some to stay. The young lady was asked about the problem of jealousy on the part of the slighted children. She was completely bewildered. She could not understand the question. (Skinner, 1948:101) Frazier later explained that although she had been twelve years old when Walden Two was founded, such emotions as jealousy had been conditioned completely from her behavior. Naturally, the younger children, who had been conditioned from birth, could experience no such emotion.

As Skinner describes his vision of the socialization process, he sometimes uses words (as has been noted in his scientific writing) the meaning of which must be changed from that of ordinary usage to that particular meaning which fits the behaviorist's theory. Also, the pictures Skinner offers, through Frazier, raise certain questions in the reader's mind, but leaves these questions unanswered. The following is a case in point.

The issue under consideration is that of self-control. (cf. Skinner, 1948:104-115; 1953:227-241) Frazier explains how children are taught self-control at Walden Two. At three or four years of age each child is given a lollipop that has been dipped in powdered sugar so that a single touch of the tongue can be detected. The child is then told that he may eat the candy later in the day, provided it hasn't already been licked. Frazier explains that all ethical training at Walden Two is completed by the age of six. Self-control (in Skinner's theory, self-manipulation of external factors) centers in the simple principle of putting temptation out of sight, a principle acquired by Walden children before the age of four. The following is Frazier's explanation of how such control is accomplished.

> First of all, the children are urged to examine their own behavior while looking at the lollipops. This helps them to recognize the need for self-control. Then the lollipops are concealed, and the children are asked to notice any gain in happiness or any reduction in tension. Then a strong distraction is arranged—say, an interesting game. Later the children are reminded of the candy and encouraged to examine their reaction. The value of the distraction is generally obvious. Well, need I go on? When the experiment is repeated a day or so later, the children all run with the lollipops to their lockers. . . ." (Skinner, 1948:107-108)

Skinner's account of how self-control is taught at Walden Two is incomplete. He does not describe the methods used to endow three and four year old children with the ability to internalize abstract conceptualizations such as "gains in happiness," "reductions in tension," and "the value of distractions." In order for the reader to understand the methods Skinner is advocating, other kinds of additional information must be supplied. Exactly what behavior is observed (in Skinner's theory all behavior is overt, physically observable) as the tot "examines his own behavior while he comtemplates a lollipop?" How does staring at a piece of candy "help recognize the need for self-control?" (The tendency to eat, according to Skinner's own theory, is related to the organism's state of deprivation). What methods are used at Walden Two should a child decide to eat the candy immediately? Skinner abhors punishment; therefore, in Walden Two no aversive consequences could follow such behavior on the child's part. Presumably, by age four, the child has been so conditioned that he is physically unable to make such decisions. Yet, if such is the case, why bother with the lollipop experience? Such "embarrassing problems" may be those Skinner says should be "ignored." (Skinner, 1971:12) In any case, the children in Walden Two are exceedingly rapid learners if measured by "normal" standards used in traditional societies.

While walking through an outdoor setting, complete with flower beds and picnic tables, Burris observed a group of "learners." His view of the scene follows:

> Large sheets of paper were thumbtacked to the tables, and several students, most of them ten or twelve years old but two or three certainly no older than eight, were drawing what looked like Euclidian constructions with heavy block pencils. Other children were driving pegs into the ground and running strings from one peg to another. Two surveyor's transits and a steel measuring tape were in use. So far as I could see, Euclid was getting a first hand experimental check. (Skinner, 1948:95)

From the descriptions Skinner offers in *Walden Two*, one may surmise that he expects his methods

would result in precocious social, as well as mental, development. The following scene illustrates such expectations.

> Just south of the flower gardens, on a blanket spread out upon the warm grass, lay a naked baby nine or ten months old. A boy and girl were trying to make her crawl toward a rubber doll. We stopped for a moment on our way to the common rooms to enjoy her grotesquely unavailing efforts.
>
> When we resumed our walk, Frazier said casually, "Their first child."
>
> "Good heavens!" I cried. "Do you mean to say those children are the parents of that baby?"
>
> "Why, of course. And a very fine baby it is, too."
>
> "But they can't be more than sixteen or seventeen years old!"
>
> "Probably not."
>
> "But isn't that rather remarkable? It's not the usual thing, I hope." My voice trailed off doubtfully.
>
> "It's not at all unusual with us," Frazier said. "The average age of the Walden Two mother is eighteen at the birth of her first child, and we hope to bring the figure down still further....I believe the girl you saw was sixteen when her baby was born." (Skinner, 1948:129)

The phenomenon illustrated by Skinner's young couple is certainly plausible, biologically, although not recommended from a medical point of view. The example is remarkable only from certain social perspectives. In the traditional Western cultural setting, a degree of freedom and responsibility is assumed that is not known in Walden Two. In a traditional Western society the teenage parents would, undoubtedly, experience hardships and frustrations in an attempt to survive economically and socially. In Skinner's planned society, the young parents, and their baby, are integrated units within the carefully designed social movement. Each individual is totally cared for within the master plan; for this security the individual has exchanged his notions of freedom. The young parents, for example, do not have to find a job, set up a home, and arrange their lives within the confines of a self-imposed budget; neither are they free to make such personal decisions. From Frazier's view, there was nothing "remarkable" in the scene.

The examples from *Walden Two* are provided to give the reader some idea of how Skinner envisions his theory being translated into cultural reality. The central issue in the Skinner-Rogers controversy, as well as that of the present study, concerns *control* of behavior. Certainly the fictitious Walden Two is an example of absolute control. Yet, could such a degree of control be accomplished? Could such a scheme become social reality? Skinner maintains that an essential element, in the realization of his theory, is an unquestioning assumption of the determined nature of man's behavior. (Skinner, 1953:9) Notions of personal freedom are inimical to his theory. Such unquestioning acceptance of a dogmatic principle has essentially the same effect upon an individual's behavior as does his acceptance of a religious faith that demands obedience.

Techniques of religious indoctrination, indeed, offer valuable material to the student of the control of human behavior. To the extent that religious (sacred) behavior is defined synonymously with unquestioning behavior, any socialization process or any socially prescribed behavior can be labeled religious—exactly to the degree conformity is mandatory for the individual's cultural viability. A society based upon strict religious conformity can be experienced as social reality. Such a society can actually maintain a degree of control close to that desired by B. F. Skinner. the following example is offered not as an example of Walden Two in social reality but to illustrate the possibilities of extinguishing self-awareness and personal freedom. The exercise of personal choice is denied by unquestioned (religious) assumptions. The following discussion deals with such assumptions as it focuses upon the Hutterite culture. (Hostetler and Huntington, 1967)

The Hutterites compose a society which offers empirical evidence of possibilities of experiencing life within a degree of control similar to that described by Skinner. In the example of the Hutterite culture we find a small society of people who are locked into modes of behavior which can be labeled "doing good." (cf. Skinner, 1971:67) If one measures "efficiency of socialization" (degree of control) in terms of escape percentage, the Hutterite socialization process has a remarkable record. During approximately ninety years of history, a little over 100 individuals have voluntarily "escaped" ultimate socialization by the group. The group numbers around 20,000 at present. How is this degree of control realized?

The Hutterite "religion" permeates every aspect of the culture. Within this religio-cultural schema one can study some of the techniques which most effectively permit, and aid, the group to extinguish individual prerogative. Religious indoctrination and socialization into the community are the same

process. Within such a cultural setting the "religious" aspects of achieving behavioral control may be more clearly visible than would be the case if control were discussed only in the psychological terminology of B. F. Skinner.

The Hutterite proclaims a dualistic world view; he experiences situations in which the "mystical" knowledge system touches the "practical" events in his everyday life, and these contact points demand some kind of explanation if the individual is to avoid cognitive dissonance. Points of ambiguity and contradiction produce anxiety and fragmentation as the individual struggles to match his personal experience with the imposed explanation of reality. In exchange for the kind of psychological security offered by the imposed pattern the individual trades his assumption of individual awareness and personal knowledge. Therefore, rather than the God of the mystical system he verbally claims to follow, he actually follows (worships) Order as patterned by the group. The interpersonal social pressure that controls the individual within the Hutterite culture is identical with the implicit interpersonal control of Skinner's plan. Experiencing such total interpersonal control is dependent upon a religious acceptance of fundamental assumptions. (cf. Skinner, 1953:9, 447) The Hutterite leader insists that the individual should accept patterns of behavior imposed by the particular religious dogma as "the Will of God." Skinner insists that the individual should accept as "scientific fact" the externally determined character with invariable patterns of all behavior. Neither assumption can be questioned if control is to be maintained.

Within Hutterite society, "Hutterite Order" is Supreme, and because group pressure is equated with "the Will of God." Divine sanction is easily translated into space-time relationships of everyday life. Within this perspective, personal interpretations of experience becomes rebellion against God. Every possible element of existence is utilized to keep the pressure of Group Scrutiny bearing directly upon the behavior of the individual. Constant interpersonal observation is maintained in order to keep the individual behaving and viewing his own experience within the confines of interpretations acceptable to the group. Within such constant surveillance and imposition all the existence of the individual is patterned.

Space patterns of isolation from other cultural contact, local colony construction and planning, and even the architecture of buildings, conform precisely to that prescribed by the dogma. Moreover, "the rigid character of the German sentence structure is supportive of the absolution of the authority patterns." (Hostetler and Huntington, 1967:12-14) From the pattern of dress alone an individual can be distinguished as an adult, female, Christian, Hutterite, humble toward the opposite sex, and whether she is going to work, evening church, or Sunday church. Regulatory time schedules are used to organize every activity and social relationship. The minutes of the day, seven days a week, are so patterned that the individual has no "private time." He has a prescribed place, dress, activity, companion, and attitude for every moment of every day. the fanatical following of patterns is of central importance relative to the control of the individual's behavior.

The essential element in establishing such control over individual behavior, in the Hutterite society and in Skinner's theory, is identical. The individual in each case must accept religiously (unquestionably) the fundamental assumptions of the system. The individual Hutterite who does not accept the asumptions of the particular religious dogma is declared "ungodly" by their leaders. The individual who does not accept the assumptions of his particular "technology," Skinner declares "prescientific." (Skinner, 1953:447) In each controlling scheme the method used to translate the assumption into action centers in a type of self-denial which can be labeled religious. Skinner, in his theory, denies the validity of all personal interpretations, meaning, introspection, understanding and so forth. Such concepts are relegated to "mentalistic" explanations which do not enhance prediction and control of behavior. The Hutterites also make every effort to negate private interpretations and personal meaning as the individual contemplates his daily experience. Consider how the Hutterites arrange the contingencies of reinforcement to mold individual behavior into a precisely designed, and almost completely predictable, society. Compare the similarities which indeed form the essential factors in each technique.

Careful comparison of such similarities indicate that those living in the Hutterite culture may be as close to realizing the degree of control advocated by Skinner as can be found in the history of any society. Basic assumptions are essential to both the Hutterites and to Skinner. Carefully planned techniques are mandatory in translating theoretical assumptions into human behavior. The Hutterites use sacred ritual in the process of eradicating any glimmers of personal awareness. Time is "set aside" each day (as well as "set apart" from patterned schedules of eating, working and sleeping). Such denial of time seems to be part of the process in negating personal

experience. The practice seems to include more than the theological term "sanctification" implies. A psychological anesthetic is used to paralyze individual sensitivity. Long sermons are slowly read; long songs are sung slowly and without feeling; long ritual prayers are recited. Much of this ritual has been memorized; some is read; none is spontaneous. Any personal meaning that could have seeped into an individual's existence during the day is mortified by suspending time and using ritual to deaden the senses. The design seems to preclude any savoring or enjoyment of the *present*. All behavior is designed on a basis of *future* expectations. The essential pattern structure for Hutterite life was formulated in the distant *past*, in 1540. (Hostetler and Huntington, 1967:6) Through a technique of focusing the individual's attention upon past and future "experience" (neither of which can correspond to the actual ongoing experience of the individual) the individual is made less aware of his own personal feelings concerning what is actually happening. Imposed patterns and explanations can seem more and more acceptable as the individual denies his self in favor of the authority. The authority comes to be accepted as Truth. The explanations and patterns of behavior designated by the authority take precedence over the individual's own private interpretations and choices of action. His behavior has been controlled. (cf. Rogers, 1951:481-533, especially 498-499)

Clearly, a consideration of the influence of past experience and of future expectations is important in any study of behavior. Yet the closest one can come to actual experience is in the present. Mental projection into the past or future is always accompanied by some degree of fantasy. Some deviation from what actually happened or what actually will happen is inevitable. An over-emphasis upon such psychological time journeying can negate present experience to a degree which inhibits personal choice of alternative actions. Such emphasis may facilitate the manipulatory syndrome an outside observer sees in both the Skinner and Hutterite schemes for control.

The Skinnerian effort is designed to induce the individual to concentrate upon external causes of his own behavior, to assume that he has no choice, to accept as scientific fact that he is not free to experience arbitrary or spontaneous actions. The goal is precisely controlled individual behavior which fits the society designed by the manipulators. The Hutterite effort is designed to induce the individual to concentrate upon future heavenly reward, to assume that he has no choice, to accept as God's will the dogma of the sect. The goal is precisely controlled individual behavior which fits the society designed by the manipulators. Obviously, the schemes are not identical. The identical element, which is the most critical single element in each scheme, is a kind of religiously accepted denial of personal experience. The attention of the individual to his own personal, present experience—to his private, current feelings—has been diverted by inducing him to subscribe to certain theoretical assumptions. If the individual can be induced to accept, unreservedly, the psychological or theological assumptions he may indeed be content to have his behavior manipulated by external agents.

To gain such control, then, from a Skinnerian perception, hinges upon the possibilities of inducing individuals to renounce private interpretations of experience and accept Skinner's basic assumptions. That individuals may be influenced, upon occasion, is undeniable. Skinner's plan, however, concerns a designed society. The size and origin of the social group is of great importance in the analysis of such group control. The fictitious nature of Walden Two limits its significance. The Hutterite society is relatively small, 20,000, and this population is separated into much smaller colonies. The society grew to its present size from a small group of religious zealots and, through the years, infants were totally socialized to accept the religious dogma of their parents. Skinner envisions a similar birth to death indoctrination in Walden Two, yet, he does not seem to be satisfied with such small-scale and long-term adoption of his theory. (cf. Skinner, 1971) Skinner would apply his scheme to the United States. For the United States to become such a planned society, millions of adults must be induced to accept Skinner's assumptions. (cf. Skinner, 1953:447) Moreover, great numbers of these adults have a long heritage of belief in the possibilities of personal choice. Many, as Skinner himself admits (Skinner, 1971:26-59) cling to philosophies which have been developed in order to maximize the individual's choice of action. Can such large numbers of adults be induced to accept a doctrinaire scheme and a mode of behavior opposite from those for which they long have struggled?

Analytical critique of Skinner's ideas may be developed on two levels: theoretical and practical. The theoretical validity of Skinner's thought is questionable. To offer illustrations in which individuals are, in some ways, influenced, is an insufficient premise upon which to build the conclusion he desires. The validity of Skinner's theory rests upon the argument that if you can control some people, in

some ways, some of the time, then it necessarily follows that you can control all people, in all ways, all of the time. Analyzed logically, the argument is found to contain the "fallacy of composition." The simplest type of this fallacy is committed when one infers that a whole population has a certain property from the premise that some constituent part of that whole possesses the property (in the present case, the vulnerability to behavioral manipulation). (cf. Copi, 1953:74-75) Skinner's argument is analogous to contending that if some people can be hypnotized on occasion, then all people can be hypnotized for all time.

A practical criticism is closely related to the theoretical weakness. Examples of advertising, precision teaching, behavior modification of autistic children, and police activity testify to the actuality of various controlling influences on some behavior. The presence of government is witness to a general social acceptance of some degree of behavioral control. To suggest, however, that an entire nation of adults, most of whom have always assumed some kinds of personal prerogative, can be induced to assume the inevitability of absolute control is to ignore reasonable probabilities. The present discussion does not imply that Skinner's technology will not work in specific instances of behavior control. Rather, the contention is that such situations are limited both in size and social context. Skinner has provided no evidence which reveals inducement on the grand scale required by his plan.

Skinner's suggestions for the control of behavior can be questioned by combining both theoretical and practical weaknesses of his theory. Skinner implies an elite group of planner, or manipulators, experts whom the rest of the people obey without question. These rulers are called "Managers" in *Walden Two*, and concerning their decisions the regular members neither have a voice nor do they desire it. (Skinner, 1948:55) To these men Skinner seems to attribute a rationality he denies mankind in general. Somehow the leaders are able to make the kinds of decisions which a physical determinism makes impossible for ordinary people. From a theoretical point of view, no scientific evidence has been offered to substantiate the assumption of such a "rationality gap" in cognitive ability. Practically, great odds are against any possibility of inducing citizens of the United States, long indoctrinated with notions of equality, to accept the idea of absolute rule by an elite. The spontaneous question of many would be, "Who is going to control the controllers?" This question may be leveled at his theory from a logical base, and it can be leveled at his social plan from the current political bias called democracy.

Various degrees of control, indeed, are accepted by individuals in their personal lives, as well as collectively in societies. An analysis of social influence upon individual psychology, and its consequent action, demands careful examination and accurate defintion of commonly used terms and of commonly desired goals. Education is a case in point. If most of the individuals within a society define education as the imposition of a closed knowledge system upon the person being socialized, thus conforming his behavior to a pattern chosen by that society, then in actual experience individuals will tend to expect and to follow behavioral dictates from social influences. Parallels of such socialization may be drawn from the Hutterite society, from Walden Two, and from certain aspects of public education in the United States. For any society to continue, such socialization (cultural transmission) may not fall below some minimum amount. If the culture is not handed down, clearly the society will disintegrate. Some continuity and stability is essential for social cohesion.

If, on the other hand, education is defined as the process of liberating the individual to inquire and to question his own personal experience in the effort to construct his own private definition of reality, then individual control by socialization will be at a minimum, and individual prerogative will be great. For any society to continue, such individual prerogative may not rise above some maximum amount. If private interpretations are allowed to eradicate cultural perceptions, again no cohesive quality will be experienced and the society will disintegrate.

In their controversy, Skinner and Rogers belabor the range between the maximum and minimum levels of behavioral control with social possibility. In the present chapter, the argument contends that Skinner's theory cannot be applied directly to a large society such as that of the United States. In the next section, Rogers' theory will be placed in social context. Where Skinner exaggerates the upper limits of possible socialization, possibly Rogers exaggerates the lower limits.

## ROGERS' THEORY IN SOCIAL CONTEXT

Rogers' ideas cannot be extrapolated into a total social setting as easily as were Skinner's ideas in the preceding chapter. Rogers has not written his equivalent of *Walden Two*; therefore, one has no specific example, from the non-directive approach, of what his ideal society would be like. He *could not*, from his theoretical position, describe the society which would result from his suggestions. First, he focuses on a process, not a product; the end product is never known in the Rogers' scheme. Second, intrinsic in any concept of society are ways of knowing and behaving, congruent with that particular society's cultural framework. Implicit within the concept of society are "rules" and "control." The epitome of Skinner's thought is control; that of Rogers is absence of control. To project Skinner's desire for maximum control, one has only to increase and intensify the social controls that have been imagined and experienced. One can imagine a "1984 situation," if only as a horror novel. (Orwell, 1949) To project Rogers' desire for lack of control, one must envision a cultural vacuum. An effort to think of a society in which the individual is completely free from the coercion of socialization boggles the imagination.

Some minimum of cultural, cohesive factors must be present for a society to exist. Culture enables interpersonal relationships to evolve and to function in the lives of individuals. Culture, the "social glue" which holds a group of people together in a society, may be labeled cultural tradition, social mores, politically formulated laws, manners, and so forth. All such concepts imply rules of behavior, the essence of which is control. The mind simply cannot handle the notion of a group of people functioning within the dynamics of everyday life while oblivious to any rules of conduct.

The intensity of cultural dictates varies with different situations. Within the isolation of the therapeutic room, Rogers may indeed help his client feel a decrease of cultural restraint. His label of such experience as "pure culture" has already been questioned. If the client's behavior became "pure" or absolutely culturally unpredictable, Rogers himself would declare the client insane. Other than physical reflex, activity is based upon knowledge. Essential for such action is the possession and use of knowledge defined as the total cognitive framework. The cognitive framework used by any individual is supplied by his particular society. (cf. Berger and Luckmann, 1967)

The overlooking of an experiential fact, such as the social influences upon cognition, must be considered a basic weakness if found in any philosophical position. Such an oversight is common to some existentialists, who may have influenced Rogers' thinking. The essence of the existentialist position is that the individual can create his own world of meaning, "existence precedes essence." (Sartre, 1956) Yet, the philosophical efforts of leading existentialists may not only be influenced covertly by cultural factors, but they are also most clearly couched within cognitive frameworks—paradigms certainly not original to the philosopher. One may ask with Frederick Perls,

> What is Tillich without his Protestantism, Buber without his Chassidism, Marcel without Catholicism? Can you imagine Sartre without support from his Communist ideas, Heidegger without support from language, or Benswanger without psychoanalysis? (Perls, 1969:60)

Within his theoretical formulations, Rogers implies that the individual can function outside a social, cognitive framework. B. F. Skinner, although he did not refer to existentialism, attacked Rogers' thought precisely at the weak point being discussed. Skinner's wording does not obscure an identical argument:

> When you turn the delinquent over to himself, as some psychologists and psychiatrists feel you can do, you will be successful only if society has in some way implanted the kinds of control which are essential. This is a point on which I argue with Carl Rogers, who claims that somehow or other you are going to find within the client himself the controlling forces that will solve his problem. His methods work with clients who have emerged from a tradition such as the Judeo-Christian, which gives them reasons for behaving well, but if a client suddenly announces, "Ah, yes! I see it now. I should murder my boss!" you don't just let him walk out of the office. (Evans, 1968:31)

The essence of the above argument against Rogers' theory is applicable also to his educational views. Although he seems to be influenced by existentialist thought in some respects, his thought

must be distinguished in other respects. For example, many people identify existentialist philosophy with the work of Jean Paul Sartre. Because of the extreme pessimism of Sartre's philosophy, existentialism is generally considered to present a rather dismal picture of man's existence. To the contrary, Rogers is an incredible optimist. Nowhere is this prevailing optimism more evident than in one of his assumptions concerning the nature of man.

While discussing the social reality of Skinner's thought it was noted that his reasoning contains a logical fallacy. He infers that if something is true of a constituent part of the same must necessarily be true of the whole. Rogers makes a variation of the same logical error when he reasons that if some of his clients seem to function better as socialization pressures are decreased, then all men would function harmoniously if socialization influences were minimized on them all. Such a utopian society does not necessarily follow, either logically or in the real world. Rogers, however, assumes that an intrinsic characteristic of each individual is a tendency to move toward positive growth, toward "maturity." (Rogers, 1961:35) He further declares:

> One of the most revolutionary concepts to grow out of our clinical experience is the growing recognition that the innermost core of man's nature, the deepest layers of his personality, the base of his "animal nature," is positive in nature—is basically sociological, foward moving, rational and realistic. (Rogers, 1961:91)

Rogers calls his assumption "revolutionary" because traditional notions held by dominant Western religion, and by psychoanalysis, consider man's basic nature evil, anti-social. Rogers assumes the opposite, that man's basic nature is good. when this assumption is applied to social dynamics the notion is seen to be analogous to an assumption made many years ago in economics. Adam Smith, in his arguments for a liberal approach to economic policy, assumed an "invisible hand" which guarantees the random financial efforts of individuals, each seeking his own good, to result in the greatest collective good. (Smith, 1961:166) Unfortunately, man's experience has never supported the existence of such a hand. Rogers seems to imply a similar hand as he poses the assumption that each individual, seeking his own values, will not precipitate anarchy, but will automatically develop a harmonious society. He writes:

> Thus while the establishment of values by each individual may seem to suggest a complete anarchy of values, experience indicates that quite the opposite is true. Since all individuals have basically the same needs, including the need for acceptance by others, it appears that when each individual formulates his own values, in terms of his own direct experience, it is not anarchy which results, but a genuinely socialized system of values. (Rogers, 1951:524)

Precise delineation of Rogers' thought on the subject of socialization is difficult. Some of his statements may appear ambiguous to those not oriented to his particular psychological view. In the above quotation he indicates that a culturally framed socialization process is unnecessary because the nature of man is such that social order is a natural result. Yet on occasion, Rogers is aware of the questions which permeate the present discussion. Consider the issues he raises:

> Is social interaction necessary in order for a self to develop? Would the hypothetical person reared alone upon a desert island have a self? Is the self primarily a product of the process of symbolization? Is it the fact that experiences may be not only directly experienced, but symbolized and manipulated in thought, that makes the self possible? Is the self simply the symbolized portion of experience? These are some of the questions which shrewd research may be able to answer. (Rogers, 1951:497)

Rogers acknowledges the basic issue, how can the self be anything independent of socialization? Yet, he never attends directly to this issue. His theoretical structure rests heavily on a kind of "knowing" which seems almost outside the cognitive domain. He constantly places great importance upon a kind of "continuing organismic valuing process." As noted earlier, this notion may be associated with the currently used term, "gut-feeling." Here is a description of what Rogers believes takes place when an individual begins to rely on the "gut-feeling," when he begins to behave contrary to the patterns in which he has been socialized.

> In therapy, as the person explores his phenomenal field, he comes to examine the values which he has introjected and which he has used as if they were based upon his

> own experience. He is dissatisfied with them, often expressing the attitude that he has just been doing what others thought he should do. But what does *he* think he should do? There he is puzzled and lost. If one gives up the guidance of an introjected system of values, what is to take its place? He often feels incompetent to discover or build any alternate system. If he cannot longer accept the "ought" and "should," the "right" and "wrong" of the introjected system, how can he know what values take their place? Gradually he comes to experience the fact that he is making value judgments in a way that is new to him, and yet in a way that was also known to him in his infancy....He discovers that he does not need to *know* what are the correct values: through data supplied by his own organism, he can experience what is satisfying and enhancing. He can put his confidence in a valuing *process*, rather than in some rigid *system* of values. (Rogers, 1951:522-523)

Regardless of some of his statements, one must assume that Rogers does not believe people can live completely outside the influence of social demands. He, evidently, advocates the "pure culture" atmosphere of therapy to help the client become aware of his own potential. In cases where the individual feels his life being stifled by introjected social demands, a realization that he is able to reject some of the demands offers him a possibility of lightening his psychological burden. Such realization provides alternatives, for action, a freedom from the opinions of others, and a growing respect for himself as a reliable source of data with which to evaluate daily experience. In some manner (that may remain ambiguous to those who do not actually experience it), an "organismic valuing process" enables the individual to experience personal choice relative to socialization pressures.

Ten years after Rogers made the above statement, he wrote:

> Perhaps it will help to understand my description if you think of the individual as faced with some existential choice: "Shall I go home to my family during vacation, or strike out on my own?" "Shall I drink this third cocktail which is being offered?" Is this person whom I would like to have as my partner in love and in life?" Thinking of such situations, what seems to be true of the person who emerges from the therapeutic process? To the extent that this person is open to all his experience, he has access to all of the available data in the situation, on which to base his behavior. He has knowledge of his own feelings and impulses, which are complex and contradictory. He is freely able to sense the social demands from the relatively rigid social "laws" to the desires of friends and family. He has access to his memories of similar situations, and the consequences of different behaviors in those situations. He has a relatively accurate perception of this external situation in all of its complexity. He is better able to permit his total organism, his conscious thought participating, to consider, weigh and balance each stimulus, need, and demand, and its relative weight and intensity. Out of this complex weighing and balancing he is able to discover that course of action which seems to come closest to satisfying all his needs in the situation, long range as well as immediate needs. (Rogers, 1961:118)

The long quotation offers a picture of Rogers' thought on an occasion when he balances some major elements of his behavioral theory with some of the realities of social demands. In the description, one finds a socially mature person contemplating a situation and then deciding upon a rational course of action. To a man from Mars, not limited by either Skinnerian or Rogerian perceptual parameters, such action might appear to be identical to that observed if he were watching the behavior desired by Skinner in a similar situation. (cf. Evans, 1968:67-68; Wann, 1964:184) The critical distinction between the two psychologists (resulting in an obvious difference of methodology) is found in their assumptions concerning the nature of man. Skinner assumes the ordinary man is incapable of rationally assessing a situation and then choosing between alternative courses of action, thus the necessity for "expert managers" who engineer a planned society. Skinner clearly states his anti-democratic bias. (Skinner, 1953:10-11, 447-448) Rogers, on the other hand, assumes that all people, if only permitted to be themselves, are rational, socially mature individuals capable of solving their complex personal problems within an automatically realized, harmonious society. Rogers' position is "ultra-democratic." Such an ultra-democratic approach may work efficiently with certain segments of a society. (Rogers' educational experience is limited to college students, graduates, and certain groups of adults). Can the notion be considered extreme when advocated for children and immature adults?

How can such a democracy be applied to *all*

social situations? All persons in any given society do not actually correspond to Rogers' assumption. If *all* were socially mature adults, possessing cognitive frameworks well developed both culturally and scholarly, a temporary respite called "pure culture" might indeed facilitate the gaining of fresh perspective. How, one may ask of Rogers, is the educator to transmit those cultural and academic frameworks to a child, using a process which is defined and designed to eliminate precisely the influence of such socialization? One may search in vain, within current educational efforts, for an example of such "democracy" being used to teach all that is needed for life in the modern society. Today, educators are wallowing in a deluge of material focused upon "free schools" and similar attempts to circumvent traditional public school curriculum. Such attempts represent a full range of beliefs, from totalitarianism to anarchy, and their methodologies vary in equal degree. (cf. Kozol, 1972:51-52) The examples cited by Rogers himself, which were discussed earlier, illustrate such variation. The example of Rogers' own "teaching" is simply an encounter group of graduate students. (Rogers, 1969:57-97) The therapeutic atmosphere dominates Rogers' work. (Rogers, 1970)

The practice of encounter-group therapy is incapable of adequately providing much essential knowledge. Essentially, Rogers argues that the learner must be guaranteed his freedom without guaranteeing to society what learning the individual will acquire. Each individual is guaranteed a privacy on the basis of an optimistic hope that he will assume the responsibility of helping others, and that all will evolve into a harmonious society. Such extreme emphasis upon idiosyncratic development actually precludes the existence of society. According to one critic of such emphasis,

> Community presupposes a certain continuity of tradition, moral insight and cognitive literary standards that set limits upon the range of uniqueness permitted each person. Education has never meant simply learning for the sake of learning. (Stanley, 1972:51; cf. McCraken, 1970)

Rogers' arguments do not meet the above challenge. The salient characteristic of his suggestions to the educator is an extreme emphasis on freedom, such freedom as found in encounter-group therapy. This degree of emphasis simply does not allow for cultural transmission. If adhered to completely, both individual and society would suffer. Encounter groups do not teach the knowledge and skills necessary for the work done by medical doctors and civil engineers. How does a twenty-three year old become a professional if he has wasted his first nineteen years? The cumulative effects upon society's intellectual life could be catastrophic if the processes of socialization were abandoned. Much of the learning necessary for life in today's society is simply not intrinsically interesting to everyone who needs to learn it. Education, "schooling," can be considered, legitimately, a form of coercion which introduces knowledge and reinforces habits. Later the adult, a different person from the child in his insights and ambitions, may be very grateful for such coercion regardless of his feelings as a child. Such coercion in youth may greatly contribute to adult freedom, that is, to greatly expanded personal choice of action. (cf. Stanley, 1972:51)

One of the nationally known critics of traditional public school education, Jonathan Kozol, has recently admitted failures within the "free school' experiments. (Kozol, 1972) Worthwhile education simply does not take place when the teacher pretends to be a "pedagogical neuter." Those teachers who do attempt such a charade should become aware that they are influencing students not only by the words they say but by their entire life style. (Kozol, 1972:51-52) Kozol now admits that some children literally cannot do anything. They need to be taught, not some back-to-nature fun skills like how to build an Iroquois log canoe, but how to live in the American society of 1974.

Rogers' emphasis does not allow for learning such essentials. In his theory, the student's statements are accepted; he may say or do whatever he wishes. He searches in the directions he chooses, hoping to discover "meaning" for himself. The teacher's function is to provide a setting that will encourage uninhibited expression, and to honestly reflect the feelings of the student. In a general sense, the teacher's interest does not focus upon the content of what the student says; he is interested in using the material to reflect the feelings of the student, to help him accept his own feelings and himself. Rogers assumes the student then will move on automatically to an adequate perception of the real world, through this "accepting process" the student will perceive himself and life as it is, be better able to cope with his environment, be "a more fully functioning person."

Rogers' suggestions may indeed be relevant in facilitating psychological health. Therapeutic value is not denied, even by B. F. Skinner. The critical flaw in the Rogers theory comes to light when social implementation is attempted. He does not adequately

account for cultural transmission. On the basis of his prior assumptions concerning the nature of man, Rogers assumes socialization to be a natural (as opposed to humanly devised) process. Such sweeping assumptions overlook much essential education. Indeed, if it is to be usable, "education for serendipity" (Keen, 1970:38-82) must be balanced with the control of socialization. (Bernstein, 1971)

To be completely fair with Rogers, one must realize that psychologists and educators whose thought resides within humanistic, phenomenological orientations are faced with a fundamental dilemma in committing to paper that which, according to their views, should remain a dynamic interplay between person and person. From such a view the integration of theory into a reasonable professional practice, when it is done, is a highly individualized process that cannot be dictated or imposed, possibly not even adequately described.

## IMPLICATIONS FOR EDUCATION

Direct application to educational practice is easily developed within an analysis of the behavioral theories of Skinner and Rogers. Such practical application is an important part of theoretical analysis because theories are useless until they affect action. As Skinner writes,

> If this were a theoretical issue only, we would have no cause for alarm; but theories affect practice. A scientific conception of human behavior dictates one practice, a philosophy of personal freedom another. Confusion in theory means confusion in practice. (Skinner, 1953:9)

In concluding the present study, therefore, major focus will be on practical suggestions for the educator.

Anyone studying the works of these two psychologists soon realizes that the locus of difference between Skinner and Rogers is not in methodology alone. To argue that the difference is in methodology is either the result of ignorance or of an attempt at adroit deception. To focus attention upon method is necessarily to divert it from more fundamental differences. Consider the process each psychologist must have followed in developing his theory. He could not have possibly contemplated a choice of method earlier than the third step in the theoretical formulation. The first step, as these theories were formed, concerned the nature of man, and certain assumptions were necessarily made by each theorist. The second step, intrinsic in the process of theory development, concerned the choice of purpose, or goal. The second step is sometimes so interrelated with the first that distinction becomes difficult. Yet, only after the "beginning" and "ending" are designated, theoretically, can attempts be made to chart an efficient route (methodology) between the two points.

Consider, as additional explanation to the above argument, another factor which is intrinsic to all theory construction. The theorist necessarily desires change in behavior, and his theory is his attempt to control the change, giving it a certain direction (in Skinner's case, toward externally controlled behavior, in Rogers' case away from externally controlled behavior). If an observer of the human scene were totally accepting of what he sees taking place (*status quo*), he would feel no need to even describe it. consider the case of an anthropologist writing a letter home to his parents. He gives some "pure description" of the native culture in which he is living. Such action can only indicate he wishes to change his parent's perception. If change were not desired, no reason could be given for the description. Even if one could imagine a case where pure description could be given with no desire for change, to go an iota beyond description is to provide irrefutable evidence that in fact change is desired.

To desire change necessarily mandates some minimum choice of direction. Such choice may be broadly defined or it can be precisely indicated. Now if the preceding argument is logically valid, one may state dogmatically that both Skinner and Rogers are trying to distinguish between "what is" and "what ought to be," as defined by the assumptions and goals of each theory. The methodology advocated by each is merely an outline of how each man is trying to control change as he desires it. To note that there is a difference between the Skinnerian and Rogerian approaches to controlling human behavior is merely to recognize the obvious. This methodological difference must be considered of secondary importance because it only reflects profoundly different opinions of what man is and what he should be. Their positions on the latter are of major importance.

The assumptions each psychologist uses in describing man, also form the basis for his explanation of man's behavior. Each endeavors to support his own description of man's nature by

overemphasizing an area of influence on behavior. Human behavior is actually a result of both social role expectations and individual need-dispositions; human behavior is a function of both role and personality. Just as individuals have certain individual psychological needs, or need-dispositions, they also acquire social roles which are dictated by the positions they achieve within social institutions. Such social roles are composed of expectations held by relevant groups and individuals within the social milieu. Skinner advocates the use of a description which overemphasizes external influence such as role expectations. Rogers advocates a description which overemphasizes personal needs and neglects the social expectations. The propositions of neither Skinner nor Rogers are adequately formulated to accommodate both major influences on behavior. An adequate analysis of behavior must consider social expectations and individual needs. As used here, the terms influence and control are synonymous.

Each psychologist has a distinctive orientation toward the concept of control. The position from which each views "control" of behavior is the essence of each theory. Change from *status quo* is desired by each theorist; Skinner's desire is toward increased, more precise, external control, and Rogers' desire is toward decreased external control, resulting in increased internal control. Their desire for a particular change causes each man to overemphasize one or the other of the two major components found in human behavior. The overemphasis, in each case, is of such enormity that an extreme position is created within each theoretical argument. The overemphasis in each theory is the nucleus, the spirit, the salient distinguishing quality of that theory. In addition, the overemphasis in each theory is precisely the quality in that theory which makes impossible the task of matching the theory with actual social experience. Necessarily, any theory is a reduction of reality, but such extreme positions as characterize the thought of Skinner and Rogers must be considered carefully.

Michael Scriven clearly implies qualities of unreality in the theories when he speaks of "...the ways I think that one can carry through the program of reconciliation of the *defensible* forms of phenomenology and behaviorism." (Scriven, 1964:180) The oversight of Scriven, and of others who contend that "coexistence" of the two positions is possible, concerns the *essence* of the theories. What is the center, the locus of vitality in each case? If by "defensible" Scriven means the parts of each man's thought that conforms to actual experience, no reconciliation is needed. One does not reconcile reality! Man continually attempts to reconcile the results of his theoretical speculation with reality. The overemphasis, the "indefensible" parts of the two theories are precisely those elements which call for attempts at reconciliation.

Reality is unitary. Man's theories about reality are the source of conflict between knowledge and behavior. The personal-social relativism of the Rogers interpretation, with its reliance upon "reality" as perceived at the moment of experience by the individual places his whole system apart from Skinner's deterministic interpretation. An unbridgeable gap separates the adherence to an extreme relativism on the one hand and the adherence to an extreme, absolute determinism on the other. The theories are contradictory from a philosophical view.

In actual experience they are also incompatible. If one ignores the impossibility of putting either theory totally into social experience and focuses only on attempts to follow either theory, contradiction is again experienced. Either theory will move its followers in the opposite direction from that taken by followers of the other theory. In no way do the theories complement each other. To choose Skinner's focus on maximized control is necessarily to undermine Rogers' focus on the minimization of control. To try to follow both is to undermine the vitality of both. To try to follow both, essentially, is to abandon both.

Such basic, and irreconcilable incompatibility is seen clearly when one attempts to apply both theories simultaneously in the classroom. How can a teacher define precisely the educational goals as Skinner advocates while permitting each student to choose his own goals as Rogers advocates? How does a teacher precisely arrange the learning environment in such a way as to control and specify the exact terminal behavior, while allowing the learner to discover his own ways of behaving as he progresses toward an unknown or unclearly defined goal? A single decision of the teacher which allows student prerogative impairs the precision of control advocated by Skinner. To manipulate the student toward a prescribed behavior attacks Rogers' central focus.

A specific example of conflict between the two approaches may be discussed within the area of testing and grading. Within the Skinner theory, the transmission of factual material and specified behavior patterns is the primary business of education; testing the effectiveness of the transmittal is a central problem. The tests must be quantifiable. A large portion of time is justifiably given to the construction and validation of the measures and records used in examining the student's progress toward the prede-

termined goals. Grades, or even candy or money, can be used as reinforcers. The evaluation of the student's progress is mandatory within the Rogerian frame of reference, it is not recognizable as the same procedure. The question to be asked is not, "Where has the student failed in his progress toward the fixed goal?", but rather, "Where is the student in his own process of perceptual organization?" A "testing situation" would only be used if it tells the student what he wants to know about his own performance.

If testing and grading is defined as procedure in which the performance of the student is measured quantitatively or ranked subjectively by the teacher then, within the Rogerian scheme, it is completely irrelevant. Any assessment other than that by the learner is not relevant because he "learns" what is significant with his own perceptions. Second, comparison with other students has little significance because each of them is working with different backgrounds, perceptual fields, and educational goals. Third, what does it really mean to the student to be labeled "C" by someone else if the goal of the entire educational procedure is to develop his own independent evaluation and self-adequacy?

The Rogerian teacher would choose to completely ignore the notion of grades. If, under the pressures of social reality (administrative command) grading were required of him, student participation would be a major portion of the effort. Rogers had his students grade themselves. (Rogers, 1969:61-62)

When confronted with two such contradictory theories, each widely acclaimed, how can the classroom teacher avoid frustration and hopeless confusion? He should realize that *all* theoretical systems are imperfect in that they fail to describe with absolute precision the realities of actual experience. Theories are useful not because they answer all the questions, or indicate the correct procedure in managing all learning situations, but because they do a more or less reasonable job of organizing the vast amount of data relevant to the learning process. They provide frames of reference for an educator to use in the assessment and development of consistency and effectiveness in his own teaching.

Both Skinner's and Rogers' models have their merits, but an educator cannot value both of them equally without creating an inconsistency within his professional practice. A reasonable approach might be to consider either set of suggestions (Skinner, or Rogers, on education) only in selected and limited social situations. In which case the work of both men could be very valuable in actual practice.

If the beginning teacher feels compelled to adhere to a theory of behavior other than that devised by himself, either of the two basic directions can be given priority. If such choice is made, however, the educator should be aware that both he and his students will be in the process of becoming different kinds of people than if the other extreme had been chosen. The Skinner type teacher must wish to control, and students who "do well" in such a setting must wish to be controlled. The essence of the educational experience is the observed behavior. Success or failure of the experience is derived from the end product, which is usually available, at least temporarily, for measurement and evaluation. The cumulative record indicates what elements of behavior were changed in terms of response data. The teacher necessarily assumes the major responsibility for the entire process.

On the other hand, the educator who would be a Rogerian teacher must see the essence of educational experience in the dynamics of the process of learning. Learning must be seen as an occurring event, not as an event that has occurred. Any "measurement" which might take place in such education is seen by the behaviorist as extremely "messy" and far from conclusive. The Rogerian teacher must see the relevant factors of education from a position with emphasizes qualitative rather than quantitative aspects of life; he should tend to be subjective rather than objective. In the Rogerian scheme the teacher rejects major responsibility for the entire process; the responsibility belongs to the student.

The advisability of exclusive adherence to either of the theories may be questioned. If a singular theoretical framework must be borrowed by the beginning teacher, theories more acceptable to total social experience could be considered. Various teaching-learning models are available (Parkinson, 1969) (Kapfer and Woodruff, 1972) which coincide more closely with present social and intellectual prescriptions than do either the Skinner or Rogers models. Limitations of the present study precludes detailed descriptions of other models. Such models, however, might be said to contain "defensible" elements from behaviorism and phenomenology.

A variety of models may offer practical methods by which the teacher can focus upon a theoretical dimension alien to both Skinner and Rogers. Skinner's overemphasis distorts the nomothetic dimension, which refers to the goals of institutions and places total attention on "role" in behavior. Rogers' overemphasis distorts the idiographic dimension, which refers to needs of individuals and places total attention on "personality" in behavior. The American society of today needs a new dimension.

Margaret Mead (1959) states that an awareness of the actual problems of learning would radically change current conceptions of education. Traditionally, in a slowly changing society, the focus was upon a vertical transmission of factual knowledge. The old, mature, experienced teacher handed down information to young, immature, and inexperienced students. A dramatic change in the rate of social change has created a break between past and present educational needs. (cf. Toffler, 1970) All persons, of all ages, are having to learn all their lives. Such a social condition demands an entirely new dimension of learning. Mead calls this new dimension "lateral transmission." Each member of society is both learner and teacher. The old function of education was primarily the dispensing of facts; the new function of education is the facilitation of "rapid and self-conscious adaption to a changing world." Mead's "lateral learning" seems much closer to Rogers' view than to that of Skinner.

To be profitable, the "new dimension" must avoid, however, the cultural weakness of Rogers' theory. Provision must be made for a minimum of cultural stability in order for the individual to escape the despair of protean existence. (Lifton, 1967:37-63) Something more than a compromise between nomothetic and idiographic emphasis is needed. Could a transactional dimension be formulated which would indicate standards of behavior including both individual integration and institutional adjustment? Quite possibly teaching-learning models may be found by the beginning teacher which, to him, are practical attempts at such theoretical synthesis. The student of teacher education or the beginning teacher might, therefore, profitably examine a variety of theories and models.

In concluding the discussion of practical implications of the study, one might consider the actual situation of a beginning teacher. Prior to the first day of teaching, most teachers have deliberately made some attempt to answer two questions: "Have I something to teach?" (Do I know the subject?), and "How can the teaching be done?" (How do I propose to present my subject?) Upon beginning to teach, a change occurs. The door of a classroom opens and twenty of forty pairs of eyes are focused upon the new teacher. There is a silence laced with expectancy. Self-examination as to knowledge of content and method drops into insignificance before the more immediate challenge: "Can I win and hold their attention? Will they follow me, like me, obey me? What sort of person could be successful in this situation? What sort of person am I? How does this situation I am experiencing add up to something labeled "education?"

In one fashion or another, for better of for worse, that first day of teaching becomes past experience. If the young teacher elects to continue in the profession, in the struggle to answer such "original" questions a certain conclusion is reached. The beginning educator comes to realize that in order to be an effective teacher one must be willing to examine his own basic beliefs about the nature of man, society, and education. He must examine the compatibility of his assumptions about the purposes of education with the available information about how learning takes place in order to develop a workable approach to teaching. Without such personal analysis the professional educator can be doomed to founder in a mass of techniques and methods that may or may not fit his own personality, the needs and experiences of his students, or the demands of the particular social situation. At some point, the beginning teacher must lay aside his books on theory and philosophy and make a personal commitment in the process of translating theory into practical, everyday action in the classroom.

## BIBLIOGRAPHY


Allport, G. W.
1955 **Becoming**. New Haven, Yale University Press.

Augenstein, L. G.
1969 **Come Let Us Play God**. New York, Harper and Row.

Bigge, M. L.
1964 **Learning Theories for Teachers**. New York, Harper and Row.

Berger, P. and T. Luckmann
1967 **The Social Construction of Reality**. New York, Anchor.

Bernstein, E. M.
1971 **A Handbook for Living and Teaching with Freedom**. (Unpublished Ph.D. dissertation) Eugene, University of Oregon.

Copi, I. M.
1953 **Introduction to Logic**. New York, Macmillan.

Evans, R. I.
1968 **B. F. Skinner: The Man and His Ideas**. New York, E. P. Dutton.

Faw, V. E.
1949 **A Psychotherapeutic Method of Teaching Psychology**. American Psychologist 4:104-109.

Friedenberg, E. Z.
1959 **The Vanishing Adolescent**. Boston, Beacon.
1965 **Coming of Age in America**. New York, Random House.

Goble, F.
1971 **The Third Force**. New York, Pocket Books.

Goodman, P.
1956 **Growing Up Absurd**. New York, Random House.
1962 **The Community of Scholars**. New York, Random House.
1964 **Compulsory Mis-education**. New York, Horizon.

Green, T. F.
1964 **Teaching, Acting, and Behaving**. Harvard Educational Review 34:507-524.

Henry, J.
1963 **Culture Against Man**. New York, Vintage Books.

Hostetler, J. A. and G. E. Huntington
1967 **The Hutterites in North America**. New York, Holt, Rinehart and Winston.

Huxley, A. L.
1932 **Brave New World**. New York, Doubleday.

Jourard, S. M.
1968 **Disclosing Man to Himself**. New York, Van Nostrand Reinhold.

Kapfer, P. G. and A. D. Woodrull
1972 **The Life-Internship Model of Curriculum and Instruction**. (To be published in Education Technology Magazine, 1972).

Kaufmann, W., ed.
1956 **Existentialism from Dostoevsky to Sartre**. Cleveland, Meridian.
1967 **The Will to Power**. New York, Vintage Books.

Keen, S.
1970 **To a Dancing God**. New York, Harper and Row.

Kozol, J.
1972 **Free Schools: A Time for Candor**. Saturday Review 55:51-54.

Kuenzli, A. E., ed.
1959 **The Phenomenological Problem**. New York, Harper and Brothers.

Lifton, R. J.
1969 **Boundaries: Psychological Man in Revolution**. New York, Random House.

McCraken, S.
1970 **Quackery in the Classroom**. Commentary 49: 45-58.

Meacham, M. L. and A. E. Wiesen
1969 **Changing Classroom Behavior: A Manual for Precision Teaching**. Scranton, International Textbooks.

Mead, M.
1959 **A Redefinition of Education**. NEA Journal 48: 15-17.

Misiak, H. and V. S. Sexton
1966 **History of Psychology**. New York, Grune and Stratton.

Neill, A. S.
1960 **Summerhill**. New York, Hart.

Orwell, G.
1960 **1984**. New York, Harcourt, Brace.

Parkinson, B. F.
1969 **A Proposal to the Carnegie Corporation of New York for Developing an Individualized, Performance-Based, Teacher Educational Program**. Washington, D. C., Department of HEW.

Perls, F.
1969 **In and Out the Garbage Pail**. Lafayette, California, Real People Press.

Perls, F., R. F. Hefferline and P. Goodman
1947 **Gestalt Therapy: Excitement and Growth in the Human Personality**. New York, Julian.

Polanyi, M.
1958 **Personal Knowledge**. New York, Harper and Row.
1959 **The Study of Man**. Chicago, University of Chicago Press.
1966 **The Tacit Dimension**. Garden City, Doubleday.

Rogers, C. R.
1951 **Client-Centered Therapy**. Boston, Houghton Mifflin.
1957a **A Therapist's View of the Good Life**. The Humanist 17:291-300.
1957b **Personal Thoughts About Teaching and Learning**. Merrill-Palmer Quarterly 3:241-243.
1961 **On Becoming a Person**. Boston, Houghton-Mifflin.
1969 **Freedom to Learn**. Columbus, Ohio, C. E. Merrill.
1970 **Carl Rogers on Encounter Groups**. New York, Harper and Row.

Rogers, C. R. and B. F. Skinner
1956 **Some Issues Concerning the Control of Human Behavior**. Science 124:1057-1066.

Rogers, C. R., **et. al.**
1967 **Person to Person**. Lafayette, California, Real People Press.

Sartre, J. P.
1956 **Existentialism is a Humanism**. in W. Kaufmann, ed., **Existentialism from Dostoevsky to Sartre**. Cleveland, Meridian Books.

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Schrag, P.
1967 **Education's Romantic Critics**. Saturday Review 50:80-82.

Scriven, M.
1964 **Views of Human Nature**. in T. W. Wann, ed., **Behaviorism and Phenomenology**. Chicago, University of Chicago Press.

Selltiz, C., **et. al.**
1959 **Research Methods in Social Relations**. New York, Holt, Rinehart and Winston.

Sennett, R.
1971 **Beyond Freedom and Dignity**. The New York Book Review. October 24, 1971 (Section 7)

Skinner, B. F.
1945 **Baby in a Box**. Ladies' Home Journal. 72:30, 135-138.
1948 **Walden Two**. New York, Macmillan.
1953 **Science and Human Behavior**. New York, Macmillan.

Skinner, B. F.
1964 **Behaviorism at Fifty**. in T. W. Wann, ed., **Behaviorism and Phenomenology**. Chicago, University of Chicago Press.
1966 Operant Behavior. in W. K. Honig, ed., **Operant Behavior: Areas of Research and Application**. New York, Appleton-Century Crofts.
1968 **The Technology of Teaching**. New York, Meredith Corporation.
1971 **Beyond Freedom and Dignity**. New York, Alfred A. Knopf.

Smith, Adam
1961 **The Wealth of Nations**. B. Mazlish, ed. New York, Bobbs-Merrill.

Stanley, M.
1972 **Illich Defrocked**. Transaction 9:50-52.

Toffler, A.
1970 **Future Shock**. New York, Random House.

Walker, H., **et. al.**
1971 **The Functional Analysis of Behavior Within an Experimental Class Setting**. in W. Becher, ed., **An Empirical Basis for Change in Education**. Science Research Associates, Inc.

Walker, H. and N. Buckley
1972 **Programmed Generalization and Maintenance of Treatment Effects Across Time and Across Settings**. (in press) Journal of Applied Behavior Analysis.

Wann, T. W., ed.
1964 **Behaviorism and Phenomenology**. Chicago, University of Chicago Press.

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